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The Catalogue that Tells the Truth

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Pioneer Nursery

(Established 1876)

1914

A
DESCRIPTIVE CATALOGUE
FROM
“FRUIT TO NUTS”

October, 1914

NURSERY ONE MILE SOUTH OF MONROVIA, OPP. S. F. DEPOT
A. FOSTER, Proprietor Telephone BLUE 329
MONROVIA CALIFORNIA



Pioneer Nursery

(Established 1876)

DESCRIPTIVE FRUIT CATALOGUE

OF

DECIDUOUS, CITRUS, TROPICAL AND
SEMI-TROPICAL FRUITS, GRAPES
BERRIES, OLIVES, NUTS AND
THE GARDEN

We have endeavored to give the good and bad points of each variety whenever possible, and such other information that will, we trust, be of value and interest to the planter, whether of Garden, Orchard or Ranch



This Catalogue does not include our large stock of ORNAMENTALS of which a price list will be mailed upon request. Plans and estimates cheerfully furnished. Call and see us before planting



A. FOSTER, PROPRIETOR
Telephone BLUE 329
MONROVIA, CALIFORNIA

OCTOBER, 1914



A YOUNG AVOCADO ORCHARD

Apples



APPLES in Southern California should be divided into three groups or sections, according to the localities for which they are adapted. These we have classed as the Lowland or Coast sections, Foothill or Orange divisions and High Valley or Mountain regions. The first and last divisions are well adapted to commercial apple growing, if the proper varieties are planted, as many profitable bearing orchards demonstrate. The second division is more difficult, and because there have been so many failures in these sections there is a general opinion that apples do not succeed in Southern California, while the real trouble has been that the wrong varieties have been planted. There are only a limited number of kinds that succeed in this section, and as the Orange or Foothill localities cover the majority of Southern California, it is of prime importance to make your selections from our restricted list.

We have classified our apples according to this plan of grouping, and in ordering would advise making selections from the lists adapted to your locality, as per example:

Lowland: El Monte and Downey.

Orange: San Fernando, Glendora and Pomona.

Mountain: Yucaipa, Antelope Valley or all cold sections.

List of Varieties Especially Adapted for Each Section

Section 1—Lowland	Section 2—Orange	Section 3—Mountain
Ark. Beauty	Banana	Ark. Black
Banana	Bismark	Baldwin
Fall Pippin	Fall Pippin	Banana
Maiden Blush	Fameuse (Snow)	Ben Davis
Gravenstein	Gravenstein	Black Ben Davis
Missouri Pippin	Maiden Blush	Delicious
Red Astrachan	Red June	Early Harvest
W. W. Pearmain	R. I. Greening	Fameuse (Snow)
Yellow Belleflower	Roxbury Russet	Jonathan
Yellow Newtown Pippin	20-oz. Pippin	King David
	Yellow Transparent	Mammoth Black Twig
		Missouri Pippin
		Red Winter Pearmain
		R. I. Greening
		Rome Beauty
		Spitzenberg
		Stayman's Winesap
		Winesap
		York Imperial

Apples from the first and second sections are not adapted for long keeping; the latest Winter varieties will not keep except in cold storage. The third section grows some of the best as well as the longest keeping apples raised in Southern California or in the whole United States.

The few varieties listed below we do not carry in stock as we wish to discard, as far as possible, the least desirable kinds. We can, however, supply our customers with any quantity:

Baldwin	King David	Roxbury Russet
Ben Davis	Missouri Pippin	York Imperial
Black Ben Davis	Red Winter Pearmain	

The following list gives the names of all the varieties described in this catalogue according to the time of ripening. Some of them appear in two columns for the reason that they ripen earlier in Sections 1 and 2 than in Section 3:

Summer	Fall	Winter
Early Harvest	Banana	Ark. Beauty
Maiden Blush	Fall Pippin	Ark. Black
Red Astrachan	Fameuse (Snow)	Baldwin
Red June	Gravenstein	Banana
Yellow Transparent	R. I. Greening	Ben Davis
	20-oz. Pippin	Bismark
		Black Ben Davis
		Delicious
		Mammoth Black Twig
		Missouri Pippin
		Red Winter Pearmain
		R. I. Greening
		Rome Beauty
		Roxbury Russet
		Spitzenberg
		Stayman's Winesap
		Winesap
		Yellow Newtown Pippin
		York Imperial

Wherever possible the descriptions are according to their character as grown at Monrovia. Those that do not grow here are described correctly for the localities to which they are suited. In all descriptions we have endeavored to give our customers some idea of the good and bad points of each, and we think that they will appreciate a descriptive catalogue that tells the truth.

The varieties printed in light capitals are not carried in stock, but may be procured for our customers in any quantity. See list.

Arkansas Beauty. Large, round, pinkish red, yellow flesh, good quality, late fall or early winter. Very productive, and perhaps the best red apple grown in sections 1 and 2. Especially successful between Whittier and Los Angeles. This may not be the true name, but it is known locally as above. Does not keep as well as some others.

Arkansas Black. Medium size, dark red, almost black. Is inclined to be of poor flavor in sections 1 and 2, but is a fair bearer in some localities. Does best in section 3. Winter, fair keeper, and sells well for fruit stands.

BALDWIN. Medium, round, slightly conical. In sections 1 and 2 dull green overlaid with dull brownish red; in section 3, bright red cheek with red stripes on yellow ground. Flavor medium to good. Winter, not a good keeper. Productive in section 3.

Banana (W. Banana). The best apple grown in Southern California. Round, slightly flattened, large, clear light yellow, occasionally showing red cheek, flavor good,

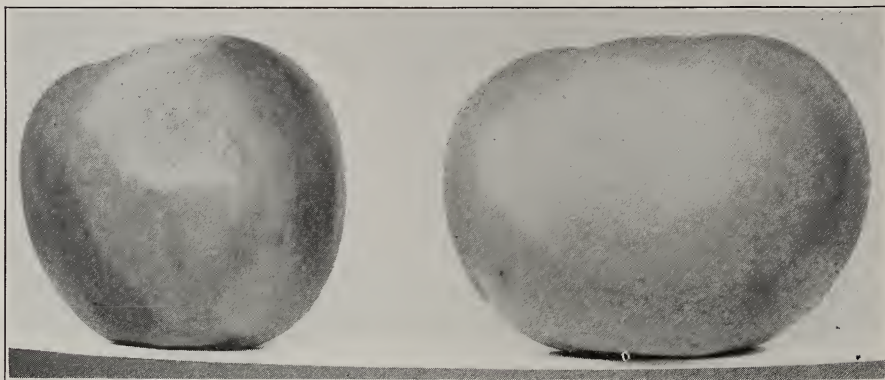
under certain conditions. We recommend it as the best for general planting and especially where most apples are failures.

Belleflower. See Yellow Belleflower.

BEN DAVIS. A striped apple of oblong shape, highly colored and grows to large size in section 3, but is small and of poor color in other localities. Productive after the trees are six or eight years old, but rather a poor quality everywhere and not recommended for this section. Ships and keeps well, but its quality prevents good prices.

Bismark. Round, flattened, large size, dark red stripes on yellowish green ground. Very tart, good flavor and cooker. Very late, dwarf even on standard roots, and is usually grown on dwarf roots. Very productive, bears when two years old, good keeper and does well in all localities. Rather too sour for table use and tree too small for general orchard purposes. One of the best for home grounds or city lots.

BLACK BEN DAVIS (Gano). Very dark red, like Ben Davis in growth and pro-



TWO APPLES FOR SOUTHERN CALIFORNIA—JONATHAN left; BANANA, right

crisp and juicy unless allowed to get too ripe. Splendid cooking apple, although not highly flavored when cooked. Ripens August 15th to October 1st in sections 1 and 2. An early winter apple in section 3 and all northern and eastern states. The most vigorous grower of all and the earliest to begin bearing. It is not uncommon to find apples on grafted trees the first year in the nursery, and usually three out of five will bear the second year after planting. It is not unusual to gather 50 pounds of fine fruit from a tree the fourth season after placing in the orchard. This apple will bear well anywhere in California. Trees interset in an orange grove in the most gravelly foothill section have given good crops regularly, and since its value has become known, the acreage planted to this sort in the apple sections of the San Gabriel Valley has been greater than all others combined. It is a regular annual bearer—never misses, and is of good size unless allowed to overbear. It will keep from six to ten weeks if picked before it becomes too ripe, but for later winter use must be placed in cold storage. There is only one variety of the Banana, the name Winter being dropped in this locality, where it is really a fall apple. Its principal faults are tendency to overbear, lack of long keeping qualities and high flavor

ductiveness, but slightly better quality. Recommended for northern sections.

Delicate. Same apple as sold by Stark Bros., under their trademark name "Delicious," which we are not allowed to use. Oblong, resembling Spitzenberg and Belleflower; large, bright clear red, sometimes red cheek on light yellow ground. Crisp, delicious flavor, one of the best for table use. Winter variety and good keeper. Has not been thoroughly tested yet in this section, but reports have been favorable. One of the best. Recommended for trial in sections 1 and 2 and for extensive planting in section 3.

Early Harvest. Flattened, light yellow, medium size. Ripens very early and should be picked before quite ripe for best flavor. Rather light bearer; good for home use; not as productive or as good as Red June for eating, but better cooker. Not recommended for section 2.

Fall Pippin. Very large, round, slightly flattened; greenish yellow, changing to dark clear yellow. Best quality for table or cooking and makes especially good sauce. Ripens in early fall, a little before the Banana and takes second place only to that variety. Heavy bearer everywhere. Especially recommended for sections 1 and 2. Keeps well for an early apple.

Fameuse (Snow). Medium size, oblate, flattened, white skin striped with bright red; flesh very white, juicy and best flavor of any apple grown in this section. Very fine eating; ripens late fall and is not a good keeper. Begins to bear late, fairly productive, sometimes has immense crops. Recommended for Section 3 and for private grounds in sections 1 and 2; not for commercial orchards.

Gano. See Black Ben Davis.

Gravenstein. Large, clear, bright greenish yellow, striped with light and dark red. Very handsome, roundish oblong shape. Aromatic flavor, juicy, best quality for eating, good shipper and keeper; best of all autumn apples. This variety is used largely for export. Heavy and regular bearer, but does not begin to fruit until the trees are 5 to 7 years old. Succeeds in all sections, especially 1 and 2. Its only fault is late bearing and rather poor cooking qualities.

Jonathan. Round, medium size, dark brilliant red, sometimes with light cheek. Tender flesh, fine-grained, splendid flavor; one of the best early winter kinds. Growth slender, moderately productive and fair keeper. Recommended for section 3, and it has been reported as being successful in Section 2. Worthy of trial if a red apple is wanted. Begins to bear late.

Kew Garden. Two varieties, very similar in character, were imported from the Kew Gardens, England, twenty years ago. They have proved very reliable heavy annual bearers. Fruit round and flattened, dull green with a few dull yellow and red stripes on one side. Good quality, flesh firm and rather juicy. Flavor quite distinct from any American varieties. A good family sort for section 2.

KING DAVID. Dark red, not tried in this section. Said to be very prolific, early bearer; fine quality. Ripens late. Not tested.

Maiden Blush. Very flat, light creamy yellow, with light red cheek in sun. Flavor peculiar, popular; should be picked before quite ripe as it becomes mealy. Unexcelled for cooking, and one of the most productive and earliest bearers known. Medium to small size. Does very well in sections 1 and 2, and recommended for home use. Flesh tender, bruises easily and does not keep well. Ripens middle of July. This variety, Fall Pippin and Banana are recommended when other apples fail.

Mammoth Black Twig (Paragon). Medium to large, roundish, conical, dark red over yellow. Not tested in sections 1 and 2, but succeeds well in section 3. A very good late variety and better than Winesap in all respects.

Maxon's Early. A new sort from Ohio. One of the most productive late early apples. Green with faint stripes; round and very slightly flattened. Ripens about the same time or a little later than the Red Astrachan; more acid and a better bearer in this vicinity.

MISSOURI PIPPIN (Stone's Eureka). Medium to large, yellow overlaid with red, dark red stripes. Rather dry and not best quality, but probably the best bearing red apple for sections 1 and 2. Fairly productive in section 1, but inclined to be small and of poor quality in section 2. Not a good keeper and not strongly recommended.

Newtown Pippin. See Yellow Newtown Pippin.

Northern Spy. Large, greenish yellow, striped red. Late and not tested in this section. This variety is immune from the attacks of the Wooley Aphis. Not recommended.

Red Astrachan. Large, round, flattened, yellow, beautifully striped with bright red. Quite tart until fully ripe, and then subacid of a distinct flavor. Good for table or cooking. Ripens early, right after Red June and Transparent. Good bearer in some localities, but inclined to be irregular and not a success in section 2. Most of the complaints in regard to the poor bearing of apples in Southern California are caused by planting this variety and Yellow Belleflower in localities that are unsuited. Both are largely bought by planters and both are uncertain and irregular and not recommended.

Red June. Small, conical, green, overspread with light red, shading to dark crimson cheek, occasionally dark crimson over all. Flavor sprightly and aromatic, neither acid nor insipid, but not recommended for cooking. The earliest of all and the best for eating. Very productive and succeeds in all sections and the bearing season sometimes extends from June to September. Strongly recommended for home use, especially for children. Faults, lack of size and cooking qualities.

RED WINTER PEARMAIN. Medium, round, yellowish, shading to a dark red. Grown principally in Ventura County and Central California south of the bay. Not tested in this vicinity but well spoken of.

Rhode Island Greening. Medium to large, flattened, deep green shading to yellow in sun. Only medium flavor and quality in sections 1 and 2, but excellent in section 3. Very good bearer in all sections. Like many of the winter apples of colder climates, this becomes a fall apple here. Only fair keeping qualities.

Rome Beauty. Medium to large, round, slightly flattened, clear, light yellow, shaded and striped bright red on one side. Crisp, tender flesh of moderate flavor, but excellent for market. Late bloomer and regular bearer in section 3; rather poor in section 2, and not recommended for section 1. One of the best sellers; late and of good appearance.

ROXBURY RUSSET. Small, flattened, deep golden russet brown. Excellent quality. This apple has proven a surprisingly heavy and regular bearer in some localities near Monrovia. Recommended for extensive trial. Late and good keeper.

Seedless Coreless. Introduced with much advertising some years ago, but proved to be a fake. Most of the apples have seeds and cores; those that do not, have a hard, knotty center that is even more objectionable. No good.

Snow. See Fameuse.

Spitzenberg (Esopus). Medium to large, oblong. Uniformly rich, bright red in section 3, shaded lighter in others. Skin dotted with small light dots. Crisp yellow flesh of splendid flavor. Not tested or recommended for sections 1 and 2, but one of the highest class apples for the mountains. Late and fine keeper.

Stayman's Winesap. Medium to large, roundish, oblate, greenish yellow, striped dark red. Keeps well, good quality and productive. A better market apple than Winesap and one of the best for section 3. Not recommended for sections 1 and 2.

Stone's Eureka. See Missouri Pippin.

Twenty-Ounce Pippin. One of the largest apples grown. Green or greenish yellow, lightly striped with dull red or brown. Rather tough skin; flesh firm and of medium quality. A good reliable bearer, productive and fruits while young. One of the best fall varieties; does well in sections 1 and 2; better quality in section 3. Its chief fault is lack of flavor.

White Winter Pearmain. Oblong, conical, deep green, large when properly pruned and thinned. Inclined to overbear and grow small in section 2. Very juicy, sweet, spicy and of high flavor, but better for table than for cooking. Trees do not fruit until 4 or 5 years old, then bear heavily in most localities. Very late, only moderate keeping qualities. The Banana has superseded this variety in late years, but it is still the best late winter apple for sections 1 and 2, as it is reliable and a good bearer.

Winesap. Size medium to small, round, conical, dark red. Good for eating and market; excellent flavor and juicy. Late, fair keeper, medium to slow growth and productive. Other winter apples have proved more profitable in many sections. Recommended for sandy soil and mountain sections, but as a rule it is not a success in Southern California. Stayman's Winesap is better.

Winter Banana. See Banana. This is a winter apple in cold sections only.

Yellow Belleflower. Grows to a large size, long and conical. Yellow, crisp, tender flesh; best quality with peculiar aromatic

flavor. Fine for eating and best of all for cooking; juicy when not too ripe. Medium to late; does fairly well in mountain sections, but is more successful at Watsonville, where it is one of the best sellers. This apple has been universally planted and has done more to give Southern California a bad name as an apple-growing locality than any other variety, as it succeeds here only in a few favored spots.

Yellow Newtown Pippin. Medium to large, flattened, round, greenish yellow, best quality, spicy, exceptionally fine for eating. Late, moderately productive in sections 1 and 3; keeps well and is largely exported to England, where quality counts. Watsonville has built up its big apple industry largely on this variety and the Belleflower. Does not sell as well here as our markets demand a high color. Does not do well everywhere, but is worth a trial in the mountain sections.

Yellow Transparent. Medium to large, oblate; skin a clear transparent; flesh tender and good; color light yellow; is a good cooker, but best for eating. Ripens extra early; juicy if not too ripe, but too delicate for long shipment. One of the best early sellers and is good in any section. The tree is very upright, pyramidal form, bears early and profitably.

YORK IMPERIAL. Medium size, flat, yellow, streaked and striped bright red; flesh firm and high flavored; late, fair keeper and recommended for trial in section 3 only. One of the best eastern sorts, but not tested in California.

CRAB APPLES

Florence. Medium, striped red, acid, good for canning and jelly. New to this section and not thoroughly tested, but worthy of trial anywhere.

Gen. Grant. Red and yellow striped, sub-acid, good eating, late. New to this section, but reported to be large and quality good for eating. Recommended for trial in all sections.

Hyslop. Large size, conical, dark crimson, sub-acid, good for eating or canning; fair keeper, early; one of the best and productive everywhere. Fruit should be picked slightly under ripe for cooking. This variety and the Red Siberian are very similar.

Martha. Large, oblate, yellow, good for canning and eating. Keeps fairly well; is new to this section and is recommended for trial. Said to be very good for eating.

Red Siberian. Large size, round, oblong, mellow, yellow and dark red, sub-acid, good for eating and canning; early, very productive; good anywhere. Fruit should be picked before fully ripe. Often confused with Hyslop.

Transcendent. Medium, round and flattened, yellow with bright red cheek, acid, best variety for jelly; medium early and a good keeper. This variety is very tart, fairly productive, misses occasionally.

Whitney. Large size, round and conical, yellowish green striped red, sub-acid; good for eating and canning; late and medium keeper. Reported to be one of the best, but not tried out in this section. Worthy of a trial anywhere.

Nearly all varieties do well in Southern California. Those we have tested have proved regular and abundant bearers. They should be planted more extensively.

DWARF APPLES

Bismark—the best late.

Banana—Best of all.

Fall Pippin—A close second.

Maiden Blush—The earliest.

Delicate—Not thoroughly tried.

Twenty-Ounce Pippin—Large, but lacking in quality.

Grown on Dwarf Paradise Apple roots, imported from France. They almost invariably bear the second year from grafting, and much more productive, the fruit being as

large as the standard sorts. The trees develop very fast, but remain dwarf in size, usually 10 to 14 feet. Recommended for city lots or other limited space, or to use as fillers between permanent trees. We handle only a few varieties, which are known to be heavy bearers, and they usually can be procured during the summer in cans and boxes for immediate planting, and in open root during the regular planting season. The description of the standard varieties are the same as the dwarf, but in many instances they bear the best and largest fruit, especially while young.

Apricots

Only two or three varieties have proved to be reliable and continuous bearers. The best for this section is the Royal. Blenheim is very similar and has the preference in the San Francisco Bay section. The new variety Pringle Late has proven very satisfactory during the past three or four years, and the Tilton is well spoken of in a few localities. Apricots will do better than any other fruit without irrigation, except grapes and almonds. For very dry locations, apricot roots are best, and for irrigation in most soils, the peach root is preferable. There is usually more loss in planting trees on apricot roots as they are easier dried and damaged than the peach. Apricots will grow fairly well in almost any section of Southern California, except in heavy, damp bottom land, but there are certain localities where they are much more reliable in bearing, and it is only in these that they are commercially profitable. Where crops can be expected with reasonable certainty they are a reliable money-maker, as they have three markets—canning, drying and shipping.

Blenheim. Deep yellow, slightly larger than the Royal; ripens mid-season; good quality and very prolific. Good for every purpose; fruit ripens evenly and second only to the Royal, and in some sections it has the preference.

Hemskirk. Ripens early; very large; light orange; extra good quality; medium but not a regular bearer. It is like the Moorpark, but earlier, and a fancy fruit for the table or shipping. One side usually ripens before the other, which spoils it for drying.

Moorpark. Very large, late and light orange color, with the best and richest flavor of all. Ripens on one side first and there are only a few localities where this variety pays, for it is the poorest producer,

although the fruit is of the highest quality.

Newcastle. Small to medium, orange with red cheek; ripens two weeks earlier than other varieties and very good quality. Uncertain bearer, occasionally heavy, but usually light. Ripens evenly and fine for family and early market. The best extra early, but not in the same class as the Royal.

Pringle Late. Large, deep orange and yellow, medium to late, good quality. Heavy bearer; the most promising new apricot. Ripens unevenly but worthy of extensive trial. Name is uncertain. Mr. E. W. Spencer planted a tree labeled "Pringle" on his ranch near Neenach about 1898, and it proved to be altogether different from the Pringle usually described, being large and late instead of small and early. Mr. Spencer recommends heavy pruning, shortening fruit spurs like plums. We obtained buds six years ago and for the past two years it has been producing heavy crops of high-class fruit. It is a heavy grower and we recommend it for trial. It has a slight tendency to ripen around the pit before the rest ripens.

Royal. The most reliable standard variety. Medium to large in size, light orange in color, and the heaviest of all producers. Ripens mid-season and evenly; good quality for all purposes. Ninety per cent of the apricots planted in Southern California are Royals.

Tilton. Medium size, deep orange, and late. Bearing is variable, according to season and locality. Ripens unevenly but is of fair quality. Late in this locality and inclined to soften at the pit before ripening. Does better at Hemet, San Joaquin Valley and Oregon. Recommended as being frost resistant.

Cherries

Only a few varieties of Cherries seem adapted to sections 1 and 2, the lowland and orange district of Southern California. Most varieties are rather poor bearers, although the trees grow well, and there are occasional seasons when trees of a suitable age bear fine crops. In various localities of the mountain section (3), cherries are one of the best paying crops. The Morello is best adapted to the warmer portions of Southern California, and is a reliable and heavy bearer, and other varieties of sour cherries, which have not been tested here, may prove equally valuable. The Black Tartarian is also very good some years, but is not reliable. Where only a few trees are planted the birds are a serious problem, and it is due quite as much to their depredations as to an unsuitable climate that cherry growing is regarded as useless here. On a single tree protection may be had by mosquito netting, but for several a .22 target rifle using shells loaded with fine shot is the best way to deal with the Linnets, which are the chief offenders.

There are two classes of cherries—the Hearts and Bigarreaus, sweet fruit, firm flesh, very large upright trees, and the Dukes and Morellos, more tart, usually round, with smaller leaves and a more spreading habit. The sweet cherries are much better for eating, the sour are much higher flavor when cooked, and are especially valued for pies.

Baldwin. Sour, large, dark red; ripens mid-season; the best of the Morello type. Good for table and cooking. This is a new variety from Kansas, a seedling of the Morello and highly spoken of. It has not been tested here, but we would advise giving it a trial.

Bing. Sweet, large and black; solid flesh of the best quality and ripens medium to late. Not tested here, but it has taken the place of many older varieties in Oregon, where it originated, and is highly spoken of for the table and shipping.

Black Republican. A large, sweet, shining black variety; late; flesh firm and of best quality; good for shipping and eating and worthy of a trial where sweet cherries succeed.

Black Tartarian. Sweet, large and early; color black to red-black, and the best of all sweet cherries as far as tested. Flavor excellent and for eating and shipping it has few superiors. About four-fifths of all the cherries on the market are of this variety, and it has succeeded in a limited way in this locality.

Early Richmond. Sour, small and extra early. Light red, tart and good for cooking. It has never proved a success here, although grown here for some years.

May Duke. An early variety like the Early Richmond, but not as good. Not adapted to this country.

Morello (Eng. Morello). Sour, dark maroon, almost black; large, and ripens very late. Tart, but of high flavor and the best as yet tested here. Good for all purposes, reliable and does well in all localities, except where the soil is very rocky and sundried.

Montmorency. Sour, late in bearing, large, dark red, fairly productive and good for cooking. Similar to Morello.

Napoleon Bigarreau. See Royal Ann.

Royal Ann. Light yellow, red cheek, very large, late and sweet. Flesh firm and sweet; the best canner and shipper, but

production is poor in this locality. Brings highest price from canners and is the best white cherry.

Luther Burbank's New Cherries. "Abundance." (Introducer's description) "Seedling of Royal Ann, strong and vigorous, early bearer of exceedingly large crops of light red and yellow fruit; very firm; extra large and delicious. Will produce twice as much as its parent; better in every way."

"Burbank." (Introducer's description) "Extra early, claimed as the earliest, medium to large, deep red, almost black, productive and very valuable."

(The above are highly recommended by Mr. Burbank. We have not tested them, but the trees are good growers.)

Figs

Adriatic Class. Figs are classified into three divisions—the Adriatic, Smyrna and Capri. The Adriatic contains most of the figs commonly grown in Southern California, and these require no manipulation, fertilization or special treatment to produce edible fruit.

Smyrna Class. These do not ripen or produce edible fruit unless the young figs are pollenized with pollen from a Capri fig by means of a minute insect called the Blastophaga or Fig Wasp. Unless this is done the fruit drops from the tree. This operation is accomplished when the young Smyrna figs are at the proper age, by suspending among the branches fruit taken from the Capri tree, which contain the fig wasps, who emerge from the figs, enter the Smyrnas and complete the pollenization. In order to obtain this result, the Capri trees must be previously colonized with the fig wasp. When the Smyrna figs are thus pollinated they produce the finest, largest and sweetest fruit in the world, and when dried are equal and identical to the best imported varieties. Unless grown on a large scale, the cultivation of Smyrna figs is too complicated for the ordinary grower.

Capri Class. The Capri produce no edible fruit of any kind, their sole mission being to furnish homes for the fig wasps and pollen for the Smyrna. There are several kinds, varying in useful qualities: Some retaining small figs all winter, which hold and nourish colonies of the fig wasps, others being especially valuable in supplying quantities of ripe pollen at the proper time, while some furnish pollen for out-of-season fruit.

Adriatic Recommended. We recommend for general family planting the Adriatic class, and of these the White Pacific and Kadota are the best in quality and compare favorably with the Smyrna or Calimyrna. We have never been able to discover any difference between the White Pacific and Kadota, although the latter was introduced as a great improvement and sold at a high price. We keep the two separate, but consider them identical, and both are of fine quality, rich, sweet and delicious.

BLACK VARIETIES.

Adriatic Class.

Brunswick. (Brown Turkey, Brown Ischia.) Large size, long, egg-shape, thick neck set one side, dark purplish red shading to green; fruit red inside, medium quality, not very sweet; heavy bearer. Main crop ripens very early; valuable for shipping

and early market as well as for eating and canning. The largest black fig that is seen in the markets early in the season. A strong cropper.

Black San Pedro. Medium to large, long, oval, no stems, color violet-black, red inside; ripens medium; good quality for eating. Similar to the Mission, possibly larger.

Brown Ischia. Described as small brown fig. See Brunswick.

Brown Turkey. Described as very early; greenish purple. See Brunswick.

Celeste (White and Black). Long and small, greenish brown; very early; productive and regular bearer; long neck, red flesh, thin skin and extra fine for family use; one of the best in every way. Too small for commercial purposes. Stands freezing.

Mission (California Black). Long-necked, pyriform, medium size. Very rich and sweet; black-purple, blue bloom, red flesh. Moderately productive, light early crop; main crop late. Good for eating, drying and family use. The oldest fig in California and our best black fig. Trees grow very large in the interior valleys, where there are specimens 50 to 60 feet high.

Rose Blanche. Oblate, medium to large, deep purplish brown with deep red flesh. Ripens mid-season. Good quality for eating. Not thoroughly tested in this section.

WHITE VARIETIES.

Adriatic Class.

Kadota. Medium to extra large, golden yellow; flesh honey, shaded golden brown; elongated, medium to late bearer; very productive. Extra superfine in quality, delicious and superior in every way. We cannot see any difference between this and the White Pacific. The name is possibly a corruption of White Datota.

Verdal Longue. Dark green, large to extra large; flesh darkest crimson; shape turbinate, flattened. Medium bearer, extra fine quality, nutty and delicious; fine for eating. The very latest fig and often caught by the frost. Peculiar drooping habit of limbs.

White Adriatic. Medium to large, turbinate, no necks, clear light green, red flesh. Medium to poor quality; ripens medium to late; excellent producer; good for canning and pressing. Exceedingly rank grower; profitable only in the interior valleys. Not



CALIMYRNA FIG WHITE PACIFIC FIG

recommended here. Fruit often cracks and sours on the tree.

White Pacific. Medium to large, pear-shaped, long neck. Golden yellow; flesh honey color, extra sweet and rich. Medium to late bearer; very productive; extra good for all purposes. We regard this variety and the Kadota the best for all purposes in Southern California, especially for home use. It does not require Caprification and its quality is almost equal to the Calimyrna. Its faults are its late ripening and lack of size in poor soils.

White San Pedro. Medium to large, pear-shaped, long neck. Yellowish green, yellow flesh, good quality. Ripens medium to early, good bearer. Not thoroughly tested.

White Smyrna. Medium to large, flattened, short neck; greenish white with white or straw-colored flesh. Fair flavor. Main crop early, very productive, good for eating and canning. This was considered the best white fig before the introduction of the White Pacific, and it is still earlier and more productive. Does not belong to the Smyrna class and requires no Caprification.

Smyrna Class.

Calimyrna (True Smyrna Fig). Extra large, often 3 to 4 inches, flattened, short neck;

color light green to golden yellow; flesh pale reddish amber; best quality of all. Ripens medium; good to fair producer; the best drying fig and for all other purposes. Recommended for commercial purposes and for those who want an extra fine fruit and will take a little trouble to get it. Will produce only by Caprification.

Capri Class.

For pollinating or Caprifying the Smyrna figs. These do not produce edible fruit.

Abyssinian Capri (*Ficus pseudo carica*). Said to contain pollen-bearing flowers throughout the year which, if true, will make it very useful and valuable. New and scarce and not thoroughly tested.

Capri No. 1. Produces fruit all the year, and used for carrying colonies of the fig wasp from one season to another. Prolific bearer for pollenizing.

Capri No. 2. Produces extra large crops for pollinating and ripens slightly later than No. 1.

Stanford Capri. New variety; not yet tested here.

Jujube. A tall, spreading shrub with glossy shining foliage of the Elm or Trumpet Vine type. It bears a yellowish brown or dark brown fruit about one inch long, oval and of sweet, pleasant taste. A strong, rank grower and does especially well in the hot interior valleys. Used in Europe for making candies. Will not stand continued freezing.

Medlar. A fruit of the apple or quince type; a native of Northern Europe. It ripens late and must be allowed to become mellow, when it has a very agreeable taste and flavor. Rather bushy grower and bears a fruit resembling a russet apple; about two inches in diameter. Flowers large and showy in early spring. Very desirable for those who wish something out of the ordinary.

Mulberries

The value of the Mulberry is too often overlooked by fruit tree planters. One or two varieties are valuable for fruit, all are splendid shade trees, a few kinds are used as windbreaks and for timber on the desert, and another is especially adapted for food for the silk worm. All are very hardy and resistant to hardships. We especially recommend the Black Spanish for fruit. Until you have tried these you have never tasted a good Mulberry.

Black Spanish (Noir d'Spain). Entirely different and distinct from other varieties. Larger than the largest Blackberry; so tart in flavor that they are unpalatable until fully ripe; sharper than the Loganberry, but of a delicious aromatic flavor. This variety differs from the others by being of a slow dwarf compact growth. It begins to bear early and is very productive, the fruit ripening in succession from July until September, and is much in demand for family use. It is hard to propagate, a slow grower and high priced.

Hick's Everbearing. The fastest growing tree, excepting the Eucalyptus, Acacias and Poplars. We have seen trees reach a height of 16 feet one year from graft. It produces fruit of ordinary quality and flavor from June to October. The fruit is

long and slender, the trees very prolific and make a beautiful shade tree in two or three years—none better for corrals and chicken yards. These furnish fruit five months in the year and is superior in every way to the Russian, of which it is an improved variety.

Silkworm (*Multicaulis*). Bears no fruit, has large heart-shaped leaves of glossy and delicate texture, which are used as food by the silkworms. It makes a beautiful compact tree of fine shape, one of the best, quickest and hardiest shade trees known, and being non-fruiting does not litter walks or grounds.

Russian. A very fast-growing and hardy tree, especially valuable when a tree is desired that can get along with little or no cultivation or water. Makes a splendid windbreak on the desert, not affected by the hottest or coldest weather, and stands alkali in moderate quantities. Preferable to the Cottonwood and Poplar, where there is a scarcity of water. Fruits very heavily during a short season in early summer, the berries being rather insipid in taste, though liked by many, and is good food for chickens and hogs. For a quick, hardy shade tree we have nothing superior. The wood is valuable for fence posts as it practically never rots.

NECTARINES

Nectarines resemble the peach in practically all characteristics except that they have smooth, glossy skins, and the trees are more difficult to grow and are not as productive. The fruit is much more highly flavored and more delicate in texture and considered superior for eating. They have never been very profitable either for shipping, canning or drying, although the dried fruit command high prices. We do not advocate planting except for local market and home use. There are several fine varieties of different flavor and time of ripening and an assortment should be planted.

Boston. Medium to large; old gold with red cheek; flesh yellow, of extra fine and rich flavor; ripens mid-season and is a shy bearer. Like all other yellow flesh varieties, it is a poor producer, but otherwise it is excellent.

Downton (Red). Small, almost entirely a rich red with bright cheeks; white and red flesh; ripens very early and is high flavored, rich, spicy and sweet. It is very productive and its principal fault is lack of size, which lowers its market value but not its desirability for home use.

Hardwick. Medium, clear, transparent cream; light red cheek; ripens mid-season; white flesh of good but not over rich flavor.

Very productive but irregular, and not as sweet as some others, but a good standard sort.

Humboldt. A yellow variety, said to be an improved Boston. Good quality but a very shy bearer.

Lord Napier. Very large, greenish with dull red cheek; ripens late mid-season; flesh greenish white, high flavored, rich and spicy. Good bearer but irregular. This and the Stanwick are probably the best varieties. Irregularity is its only defect.

New White. Medium to small, greenish white; ripens late; flesh clear white of a sweet and delicate flavor. It is a light bearer, and in some localities liable to dry and crack on one side. When this does not occur it is highly spoken of. Not as productive as some others.

Stanwick. Very large, clear, greenish white with red cheek; ripens late; white flesh, whose flavor is extra fine, rich and juicy. Good bearer and highly recommended, but we are not prepared to state whether this is a better variety than the Lord Napier or not. All of the above varieties are freestones. We do not know of any clings that would compare with them in any respect.

Peaches

Peaches and Plums are the two fruits which succeed best in Southern California. Other fruits MAY do well; these are almost certain. There are no restricted districts for peach growing, except where the ground is too damp and heavy, but there are some places where they grow better than others. There are no varieties that cannot be successfully grown, but there are some kinds that stand head and shoulders above the common run, and it has been demonstrated that certain sorts are better adapted to some localities than to others. We cannot tell what varieties may be best for each locality, but we base our recommendation on those which have proved almost universally successful. Many new varieties are appearing, some of which are a real improvement on the older kinds and are bound to succeed them. We are listing below those that are better under the heading "New Varieties"; those not as good under "Old Varieties."

New Varieties	Old Varieties
Capt. Ede.....	Late Crawford
Champion	Geo. 4th
Engle's Mammoth	Salway
Fitzgerald	Early Crawford
Greensboro.....	Brigg's May
Hiley	Strawberry
Henriette.....	Any Late Cling
Mayflower	Alexander
McKevitt's Cling.....	Heath Cling
Tuscan.....	Lemon or Orange

We have divided the peaches into two classes—Freestones and Clings—and separated these according to the color of their flesh—white and yellow. The Clings should really be separated again, as the very early varieties, sometimes called "semi-clings," are almost exclusively used as fresh market fruit, while the word "Clings" as applied to California peaches is always supposed to mean canning varieties. The last few years has seen an extraordinary demand and heavy planting of clings for canning and trees of this kind have been scarce and high priced compared with freestones and the "semi-clings," due to the higher price paid for them at the canneries. We think that this condition is about due for a change, as

some of this heavy planting will soon come into bearing and we look upon the freestones as a safer proposition, as there is only one market for the clings, the canneries, and when they are oversupplied the fruit must be wasted, while the freestones can be shipped as fresh fruit, canned or dried, according to local conditions.

WHITE FREESTONES.

Belle of Georgia. Very large, round, oblong, transparent, creamy white, red cheeks; flesh juicy and tender and of high flavor and finest quality. Ripens mid-season; abundant bearer and fruit good for market and eating. Similar and even better than Geo. 4th. This class of peach is much higher flavored than the yellow.

Champion. Extra large, round, transparent cream, bluish cheek, highest quality, juicy, soft and delicious. Ripens early to medium; fair to good bearer and in demand for the table and market. Earlier, larger and equal in quality to Geo. 4th. Light bearer occasionally.

Geo. 4th. Large and round, creamy white with red cheek. Juicy, highest flavor and quality. Very productive; good for table and market; ripens mid-season; a standard quality and one of the finest. Fruit is tender and bruises easily.

Hiley. Medium size, round, yellowish white with red cheek. Flesh juicy and of good quality; fair producer; ripens early and good for table and market. One of the earliest of the large white. Very good.

Strawberry. Small to medium, round, greenish white with red cheek. Delicate flesh, sweet and rich flavor. Very productive; matures medium to early; too small for market but fine for the home. One of the standards; fine flavor but small.

Saucer, Chinese Saucer, Australian Saucer, Peen-to. Very peculiar shape, flattened, light yellowish white with bluish cheek; flesh very soft and delicate, peculiar flavor, variable quality. The earliest of all; very productive with occasional poor years; good for eating and local market. Tree of a slender weeping habit, often over-

bears, causing poor fruit. Blooms very early, and valuable as extra early only.

Winter Freestone. Round, medium to small, clear light green. Flesh moderately firm and dry, peculiar seedling flavor. Latest of all; ripens after Thanksgiving; very productive; good for table and market. Often so late as to freeze on the trees. Lack of color cheapens its market value. Our own introduction, originated in Duarte.

YELLOW FREESTONES.

Admiral Dewey. Round, oblate, medium size; yellow with dull red cheek; flesh fairly firm, good texture and medium to good quality. Extra early; good for table and market and fairly productive. Not as prolific as the Imperial, and probably a few days later. A good extra early.

Capt. Ede. Large size, round, oval, bright yellow, red cheek; flesh juicy and fine-grained; best flavored of all and ripens week before the Elberta. Good to extra bearer; fine for all purposes; not as firm or as good shipper as the Elberta, but of better flavor. The highest quality mid-season peach.

Early Crawford. Large to very large, oblate-oblong, brightest golden yellow, deep red cheek; flesh loose and coarse texture, juicy and of medium quality. Early, three weeks later than Imperial; good to heavy bearer and good for drying, canning and general use. The standard early, but coarse and lacking keeping qualities. Fruit is often of poor flavor with split stones. Grown extensively but being superseded by better varieties.

Late Crawford. Large to very large, round-oblate, bright golden yellow, dull red cheek. Flesh fairly firm and juicy, medium to good flavor; ripens medium early, ten days after Early Crawford, and good for all purposes. Usually a good bearer, not a late peach, but simply later than the Early Crawford, which it closely resembles, but a better all-around fruit. Both are too large and flabby for the best results.

Elberta. Very large, oblong-oblate, a beautiful fruit, bright yellow with brightest red cheek. Flesh firm, good and rather dry, medium quality, not of the highest flavor. Matures mid-season; good for all purposes; an especial good shipper, and very regular and productive. It has few commercial faults and is the best shipping kind. Only medium flavor except in a few favored sections. Usually ripens when the market is crowded and consequently commands poor prices.

Engle's Mammoth. Extra large, plum or pear-shaped, clear yellow with trace of red on cheeks. Delicate flesh, fine texture, rather dry and of good to best quality. Ripens late, eight days before the Salway; good and regular bearer and good for table and shipping. Chief fault, splitting of stones. With this exception we consider it the best late and much better flavored than the Salway.

Fitzgerald. Oval-oblate, large to very large, bright yellow, red cheek. Fine-grained flesh, firm and juicy, good quality and flavor. Ripens with the Early Crawford; good bearer and good for all purposes. Very much like the Early Crawford, but superior in every way. We unreservedly recommend it.

Foster. Large, round-oblate, bright yellow, small red cheek; flesh and quality medium to good; ripens a few days before the Early Crawford; good regular bearer and adapted to all uses. Resembles the Early Crawford, but better in every way;

smaller stone, which seldom splits. Inclined to overbear.

Imperial. Large, round-oblate, clear bright yellow, deep red cheek; flesh good and firm, occasionally dry, fine flavor unless allowed to overbear. Extra early; the earliest yellow; good for shipping and market, but overbears badly unless thinned, and lacks quality unless carefully taken care of, but when this is done it is the best extra early market and table peach in this class.

Lovell. Large and round, clear golden yellow with faint red blush; fine-grained flesh, firm and smooth, best quality and good flavor. Matures medium late, productive, inclined to overbear and good for all purposes. Sometimes too dry, but the best canning and drying peach and unsurpassed for other uses. Ripens during a crowded market.

Muir. Medium to small, clear yellow, no red on skin or stone, clear light yellow flesh, dry and inclined to be mealy and lacking in flavor. Ripens medium, between Elberta and Lovell; used for drying; produces heavily and inclined to overbear. A poor grower; requires thinning; exclusively a drying peach and the best for that purpose.

Salway. Oblate-round, dull yellow with dull red cheek; flesh inclined to be dry and mealy, variable quality. Ripens late to very late, heavy crops, overbears and the fruit is used for canning, market and family. Must be regularly thinned, lacks quality, but is the most popular late yellow.

Susquehannah. Round, extra large, deep yellow, bright red cheek; flesh very juicy, coarse and lacking firmness, fair to medium quality. Matures medium late, just before the Lovell, medium bearer, used for the home and canning. Too large and does not keep well, lacks flavor. Largest freestone grown.

WHITE CLINGS.

Of these only Heath, McKeitt's and occasionally Alexander are used for canning.

Alexander. Medium, oval, greenish white with large red cheek; flesh juicy, has a watery taste common to all extra early clings. Very early, fairly regular and good bearer; adapted for home, shipping and market. A standard extra early which lacks flavor when compared with the later sorts. Of the six extra early on the market this is the best known.

Brigg's May. Medium to large, oblate, light green with red cheek; flesh juicy and soft, green with an early flavor. Among the earliest to ripen, it is a good to medium bearer and used for table and market. Among the largest of the extra earlys.

Greensboro. Very large, oblong and pointed, clear lemon, almost transparent, blush point. Creamy white flesh, soft and semicling, quality good to best of the early sorts. Ripens one week after the earliest, very good bearer, used for market, home and shipping. The best of the early kinds; matures a week before the Imperial freestone, and is recommended.

Heath. Medium to large, almost round, greenish white, small red cheek; white flesh, red around stone, considered very best quality. Ripens late, after the Salway; very productive; used for canning and shipping. Inclined to overbear. Fine for home canning and pickling. The standard late white cling.

Indian Blood. Medium, green, becoming suffused with deep black, almost purple; flesh blood red, sometimes mottled, spicy and very best flavor. Fair to good bearer; very late and used for the table and home

canning. One of the best eating and cooking peaches grown; has a distinct and attractive flavor, especially when cooked.

Mayflower. Medium, creamy white, light red cheek; greenish white flesh, juicy and fair to good quality. Claimed to be the earliest of all white clings. Not fully tested as to productiveness. Extensively advertised as the best and earliest grown.

McKevitt's (Strawberry Cling). Very large, oblate, delicate transparent creamy white, suffused brilliant pink cheek. Spicy, white, tender flesh, fine flavor, rich and sweet. Ripens mid-season with Elberta; good for market and table; very productive and profitable. One of the handsomest peaches grown. Sold on market as Strawberry Cling, and must not be confused with McKevitt's cling, which has yellow flesh.

Sabichi. Medium, round, slightly pointed. Light cream with light red cheek. Firm and close flesh, quality good for a late variety. Matures almost the last of all; very productive with occasional off years, and is used for storage and market. A very good extra late peach, somewhat lacking in size and quality. Ripens about the last of October.

Sneed. Medium, oval, greenish white with large red cheek. Greenish flesh, juicy, good quality, perhaps the best of the extra early. Fair to medium bearer; ripens very early and used for home and market. Similar to other extra early, but somewhat more highly colored and sweeter.

YELLOW CLINGS.

Henriette (Levi's Late). Medium to large, yellow, almost overlaid with deep red; deep yellow flesh, red around stone, firm, fine-grained and good quality. Ripens very late, after Salway; very productive, overbears; used for canning, storage and market. Needs careful thinning. A fine peach which would be used more extensively for late canning were it not for being red around the stone.

Lemon. Medium, clear yellow with very little red; flesh a light yellow, a little red around stone, firm, close-grained and good quality. Ripens medium to late; bears too heavily unless thinned, and is used for canning, making clear yellow canned fruit.

Orange. Extra large, round, pronounced tip, rich golden yellow, bright red cheek; flesh deep golden yellow, red at stone, firm, coarse-grained and juicy. Ripens early, shy to medium bearer and used for canning and shipping. Chief fault is lack of productiveness. Good canner, but not equal to some others, and being superseded by the Tuscan.

Phillip's. Large, oval or oblate, clear light yellow, no red; flesh clear yellow, no red at stone, firm, fine-grained and very best quality. Medium to good bearer. Ripens medium late with Elberta; used for canning. This peach brings the highest price from the canneries, and its only fault is an occasional lapse in bearing.

Triumph. Medium, yellow, almost entirely overlaid with deep red; flesh easily bruised, soft, juicy and of fine flavor. Ripens very early; good for market and table and inclined to overbear. A semi-cling not used for canning. If properly thinned it is of better flavor than the Imperial or Admiral Dewey, which ripens at the same time.

Tuscan. Large to very large, yellow with bright red cheek; flesh fairly firm, juicy and slightly coarse, very best quality for canning. Very productive and regular; one of the earliest; fine for shipping and canning. At the present time in greater demand than any other cling. Closely re-

sembles Early Crawford in appearance and time of ripening. One of the very best.

SPECIAL PEACHES.

Leader. -Originated by Luther Burbank and described as a cross between a Muir and Crawford; the earliest of this class of hybrids. Ripens earlier than Early Crawford; fruit round of deep golden yellow, crimson blush cheek. Freestone; firm flesh, fine-grained and sweet. Has not yet been affected by curl leaf. Good for all purposes, but not tested as yet in this locality.

National. Originated by Luther Burbank and described as a giant peach; cross between a Muir and Crawford. Deep yellow, almost overlaid with bright crimson; firm, delicious flesh; splendid dryer and shipper; one of the best freestones. Ripens two weeks earlier than the Muir and Late Crawford. Not tested in this locality.

Shamrock. Described as an extra late peach; large, deep red cheek; a cling which originated near Burbank, and brought big prices to its grower, who had a monopoly for some years on fancy peaches for the extra late market. We will have some fruiting this year at the Nursery, and will then be able to describe it more accurately.

Sunland. A very late yellow free of peculiar bright clear color and fine quality. Slightly later than the Salway and much better quality. Originated near Tropico and introduced by the Sunset Nurseries of that place.

Tosetti's Late Free. Extra large yellow freestone, ripening late in November. Size and quality about equal to the Elberta and Late Crawford. We expect to make a thorough study of this variety, as it seems to be, judging from the samples we have seen, to be the most promising late peach of them all.

For the convenience of our customers and those who read this catalogue, we have compiled a few tables covering a few of the characteristics of the peaches we have described, which may be useful. In regard to the time and order of ripening, there may be a variation each year, but our list is approximately correct.

Peaches in Order of Their Ripening.

Saucer	Heath Cling
Mayflower	Indian Blood Cling
Japanese Dwarf	Henriette Cling
Alexander	Tosetti's Late Free
Sneed	Sabichi Cling
Brigg's May	Shamrock
Greensboro	Winter Freestone
Imperial	Best Extra Early
Admiral Dewey	Saucer
Triumph	Mayflower
Hiley	Greensboro
Leader	Imperial
Strawberry	Leader
Foster	Best Yellow Free.
Early Crawford	Imperial
Tuscan Cling	Fitzgerald
Fitzgerald	Capt. Ede
National	Lovell
Late Crawford	Engle's Mammoth
Geo. 4th	Best Late.
Champion	Engle's Mammoth
Capt. Ede	Indian Blood Cling
Orange Cling	Henriette Cling
Belle of Georgia	Shamrock
Muir	Best White Free.
Elberta	Hiley
Lemon Cling	Geo. 4th.
McKevitt's Cling	Belle of Georgia
Phillip's Cling	Champion
Susquehannah	Best Clings.
Lovell	Tuscan
Engle's Mammoth	McKevitt's
Salway	Phillip's
	Henriette

Pears

In general pears grow best in rather damp situations and require fairly rich soil. They will succeed better in low wet ground, and in heavy adobe or black soil, and will also stand more alkali than any other fruit. They do not like very dry soil like the loose rocks and granite of some of the orange sections, but do fairly well in most of the orange districts where the ground is rich and fine, especially so if given plenty of water. A few of the hardiest and most productive will grow almost anywhere, of which the Kieffer is the best example. The pear is well adapted to most of the mountain valleys where the soil is rich and not too loose, if the winters are reasonably cold and the water supply ample. Some of the best pears grown in California are from the Antelope Valley and command premium prices from shippers and commission houses. For commercial purposes the word "Pear" usually means "Bartlett" in this state, and probably 90 per cent of those planted are of this variety. For general excellent, canning and shipping qualities the Bartlett is unequalled, but there is a large field open for later pears for winter and spring markets.

In some sections the blight is proving very troublesome, and ruining many fine orchards. The treatment is very expensive, and is done by experienced men who cut out all affected parts from branches, trunks and roots. Planters should be very careful in buying and see that their trees come from nurseries entirely free from this disease and from districts where it is not prevalent. Monrovia and Southern California in general have been reasonably free from blight for some years, and nothing serious has been observed in this section for the past six or eight years.

The fruit should always be picked before it is ripe and stored until mellow, which brings out a much better flavor. The proper time is when they will break off easily at the joint on stem when the lower end of the pear is lifted to a horizontal position.

Bartlett. Large, pyriform, with short, heavy neck; clear light yellow, brilliant red cheek. The flesh is fine-grained, juicy, melting and luscious; good for canning, shipping and all purposes. Ripens medium to early and a very heavy and regular bearer. Very susceptible to blight. The standard pear by which all others are compared.

Beurre Bosc. Very large, long-necked, dark russet color. Flesh juicy, melting, aromatic and delicious. Fine for the table and market; ripens in the fall; a medium bearer. Not thoroughly tested in this section.

Beurre d'Anjou. Medium to large, oblong-pyriform, golden russet with red cheek. High flavor, soft and delicious; used for storage, market and table. Matures in late fall; medium to good bearer. Not tested in this locality.

Beurre Hardy. Large, obtuse, thick neck, green overlaid with dark russet brown. Good flavor, sweet, used for market and eating. Ripens in the fall; irregular bearer, but heavy; misses about two out of three years; strong grower and susceptible to blight.

Clapp's Favorite. Large, long neck, resembles the Bartlett in color and shape, but with redder cheek. Good quality, fine flavor; used for market and table. Earlier than the Bartlett; fair bearer, and not thoroughly tested in this locality.

Comice. Large, round-oblate, greenish yellow with red and russet cheek. Very good,

rich aromatic flavor; ripens in late fall. Bearing qualities unknown, not tested, but have good reports from Oregon, where the fruit brings fancy prices for shipping.

Duchess. Very large, pyriform, thick neck. Greenish yellow, slightly russet, white flesh, very good flavor. Ripens winter; good to very good bearer. We have received some very good reports on this variety. Does well as a dwarf.

Flemish Beauty. Large, obtuse-pyriform, yellowish russet, red cheek. Flesh coarse-grained, melting and juicy, and good for market and shipping. Ripens in the fall; fair producer. Not thoroughly tested here.

Kieffer. Very large, obtuse, no neck. Greenish yellow, slightly russet. Flesh very coarse, high flavor when fully ripe.



THREE GOOD PEARS

Beurre Hardy Bartlett Winter Bartlett

Good for shipping and cooking. Ripens late fall. Heavy and regular bearer; the most reliable, but of poor quality unless properly ripened, and never of the highest class. Resists blight and will grow where no other will succeed.

Le Conte. Medium, regular pyriform, light lemon yellow. Flesh rather coarse, soft and rather poor flavor. Ripens early summer and is good for cooking. Very regular and productive. Succeeds where most others fail. Very strong grower and bears young. Not for eating, but fine for home use.

Louise Bonne. Large, regular long shape, golden bronze, reddish brown cheek. Extra good quality, melting, fine for eating and cooking. Ripens medium early, with or just after the Bartlett; irregular bearer; misses about half the time. A fancy quality, too soft to ship but good for the home and local market.

Madeleine. Small, round, slender neck, green; flesh soft and of good flavor, not extra sweet. The very first pear and good for eating. Often ripe before the earliest peaches; good bearer; good for family use only.

Rostiezer. Medium, long and slender, green shaded light russet. Flesh coarse-grained, soft, sweet and delicious flavor; good for eating. Ripens early, before the Bartlett, and regular bearer when six or eight years

old. Too soft for market use, but the sweetest and best early pear.

Seckel. Small, round, greenish brown. Flesh spicy, melting, very highest flavor and fine for eating. Ripens early fall; begins to bear late and then moderately. The very best for eating and a fancy family fruit. A slow grower.

Winter Nellis. Medium to small, round, green overlaid with bright russet brown. Flesh fine-grained, white, sugary, rich and good quality; used for storage, shipping and eating. Ripens winter; usually a shy bearer except in some localities, generally on damp locations. The tree is a poor grower, often crooked.

Winter Bartlett. Medium, obtuse, pyriform, clear greenish yellow. Flesh coarser than the Bartlett; good quality; good for shipping and table. Ripens early winter; very heavy bearer; fruits younger than any other. A splendid variety for quick results; not equal to Bartlett, but we recommend it as a sure thing. Flesh occasionally contains hard knots.

Winter Seckel. Small, round, greenish brown. Exactly like the Seckel, except that it bears younger, fruit a trifle larger, bears heavier crops. Called Winter by courtesy only as it is only two or three weeks later than the Seckel. An autumn variety and better than the Seckel.

DWARF PEARS

Bartlett
Clapp's Favorite
Duchess
Flemish Beauty
Kieffer
Seckel

These are grafted or budded on Quince roots, which shortens its life but hastens

and increases its bearing. They have never been a success from a commercial standpoint, but are desirable for private places where the space is limited and early bearing desired. The Duchess and Bartlett are probably the best for this use, but we usually have other varieties in stock as listed in the margin. Description of the standard sorts apply to both.

Persimmons

JAPANESE PERSIMMONS.

The Japanese varieties succeed perfectly in California, and at present are bringing better returns than almost any deciduous fruit, and have the advantage of excellent keeping and shipping qualities, and can be held to secure better prices after they are gathered; the demand for them is also increasing. The trees usually begin to bear the fourth year and produce heavy crops, but some are inclined to alternate each year between a heavy and very light yield. They are very difficult to transplant, and extra care should be taken to prevent exposure or drying of the roots before planting. A larger percentage of them is lost through planting than any other tree, but when once established they are very long lived and hardy.

There are three general types of the Japanese varieties—the flat or tomato shape, the round and the pointed or heart-shape, the latter, especially the large fruit, being most in demand and bringing higher prices. Some of the round and flat varieties produce the heaviest weight in fruit. All kinds should be kept until perfectly soft before eating.

AMERICAN PERSIMMON.

This variety has given rather poor results in most places in California. The trees are strong growers but fail to bear, which may be due to lack of pollenization, and

could probably be overcome by planting other persimmons in their vicinity. They make beautiful ornamental trees, small, shapely and hardy.

They are native in the middle and western states, much smaller than the Japanese, darker brown, usually with blue or white bloom. More astringent when green, but sweeter and higher flavored when ripe. They are more upright, and make a clean, compact little tree.

Gosho (Japanese). Extra large, round, rather flat. Good upright grower.

Hachiya (Japanese). Probably the largest of all; long, pointed, deep orange red. Finest quality and brings highest price of all.

Hiakume (Japanese). Almost round, slightly pointed, probably the most prolific and regular bearer, and very large size when properly thinned. This is almost without astringency and may be eaten from the hand like an apple. The flesh is darker than the skin and filled with numerous black specks or dots, which are natural and harmless. A valuable variety.

Tanenashi (Japanese). Very large, pointed, deep orange and very prolific, and when ripe very soft and sweet; almost seedless. One of the largest and best varieties, and ripens rather early.

Yeddoichi. A flat, large, light yellow fruit, very productive and of good quality. A very good keeper.

Plums

Plums as grown in California are divided into three groups, each with peculiar and distinct characteristics. They are known as the European, Japanese and American, and of these the European varieties are almost universally failures in Southern California. The Japanese and their hybrids are equally successful and the American, while easily grown, are not as valuable and are rarely seen in this state. Exceptions: The Dam-

son is both prolific and profitable, although a European variety, while the Simonii, a Japanese, is almost entirely barren south of the Tehachapi. These peculiarities are reversed in other parts of California, the interior valleys being much more favorable for the European, while near and north of San Francisco Bay, both do well, the latter being more successful than the Japanese.

Among the Japanese group, which is the

type grown almost exclusively in Southern California, there are several distinct kinds, the Blood or Satsuma variety being by far the most valuable, the early green flesh type of which the Hale is a typical example and the red-skinned and yellow flesh sorts of which the Burbank and Wickson are the best known. There are other kinds, hybrids and their modifications, which offer a great variety of color and flavor. These varieties suitable to this end of the state generally succeed over a wide range of territory, but some kinds are locally much more regular and productive than others. The Satsuma, for instance, is in some localities a regular annual bearer of full crops, while in other places only a short distance away is liable to yield light two years out of three.

Some of the new varieties recently introduced are a great improvement over the older kinds, offering opportunities to planters to supply the market with fruit which is in demand and brings the highest price. Among these we can recommend the Duarte, Santa Rosa and Formosa as being the best and sure winners.

Beauty.* See Burbank's New Varieties.

Burbank. Japanese, round, slightly heart-shaped, medium to large, dark yellow overlaid with dark red cheek. Flesh juicy and mellow of high flavor and fair keeping qualities. Ripens mid-season, ships well if picked while hard; one of the best bearers known. Not a good cooking variety.

Bartlett. Japanese, oval to round, medium to small in size, dull red over yellow. Flesh yellow, strong banana flavor. Ripens mid-season and is good for eating. Not a regular bearer, too small for shipping and not recommended.

Climax. Japanese, heart-shaped, large, color deep dark red. Flesh yellow and juicy; very early, good keeping qualities and valuable for early markets. Productive; fruit sometimes cracks, and is probably the earliest shipping plum.

Clyman. European, oval to round, medium size, deep purplish red, blue bloom. Freestone. Flesh green and firm, of extra fine flavor. Ripens early; good for table and shipping; best quality. Very shy bearer in Southern California, good in the valley regions, but not recommended here.

Damson. (Shropshire.) European, oval to round, small, dark purple blue, freestone, flesh very tart, fine flavor. Latest in ripening, very best canning and cooking qualities and heavy bearer. One of the very few European varieties which do well in Southern California.

Duarte. See Burbank's New Varieties.

First. Japanese, small and heart-shaped; green, shading to amber yellow and pink. Flesh greenish yellow, extra fine and delicate flavor. Ripens extra early; very heavy bearer and very good for eating and canning. Small size but one of the best for home planting and the earliest except the Cherry.

Formosa. } See Burbank's New Varieties.
Gaviota. }

Gonzales. American-Japanese hybrid, medium large, round, slightly pointed; color deep rich red. Flesh yellow, very juicy and of excellent quality. Ripens very early. Good for market and home use; bears very young and heavy. Too soft for shipping. One of the new plums from Texas and one of the best early varieties.

Green Gage. European, small to medium; round, greenish yellow, with firm dull yellow flesh; extra rich and sweet. Ripens mid-season. Fancy canning and eating variety. Not productive enough for gen-

eral planting here, but does better up north.

Hale. Japanese hybrid, medium size, round, sometimes heart-shaped. Green shading to amber, touched with red; flesh greenish yellow, firm and very juicy and fine quality. Ripens very early, fine for table, local market and canning and produces very regularly and heavily, never fails. The only objection is lack of size and color, but one of the best family plums and recommended.

Kelsey. Japanese, large size, pointed and heart-shaped. Green overlaid with brownish red; flesh green, very firm and dry, very sweet, almost insipid; one of the best for keeping qualities. Ripens very late; good for shipping and storage; very heavy and regular bearer. Lacks flavor and inclined to overbear, but one of the best paying plums in spite of poor quality.

Maynard. Japanese hybrid, almost round, medium size and dark purplish blood color. Flesh firm and blood red, fair to good quality. Ripens medium to late; good for market and shipping; irregular bearer. A fairly good blood variety, better quality than the Satsuma, but not as good as the Duarte.

Othello. Improved purple leaved. Fruiting qualities unknown and sold as an improved purple foliage ornamental.

Pissardi. A round purple leaved variety, small to medium size, light clear red, with pink flesh, tart and of fair quality. Ripens early; good for cooking. This is a fair bearer as well as a beautiful ornamental tree.

Prize. } See Burbank's New Varieties.
Santa Rosa. }

Satsuma. Japanese, large, oval to round. Deep purplish red, flesh firm and juicy, dark crimson blood; very best; splendid keeping qualities. Ripens late; fine for eating, shipping and canning. Irregular in some localities, heavy and regular bearer in others. The original "blood plum" and more largely planted than any other in Southern California, but there are now six or seven new ones on the market and some of them much better quality.

Satsuma Late. Japanese, medium size, round, sometimes flattened. Deep purplish red; flesh dark crimson blood, similar in every way to the Satsuma but three weeks later and of higher quality. Inclined to bear alternate years only.

Shiro. Japanese hybrid, medium to large, pointed heart-shape. Color light green to clear yellow; flesh light bright yellow, very sweet, rather flat. Ripens medium; one of the best for canning; cooks like the Green Gage. Very productive but overbears badly and lacks flavor.

Simon. (Prunus Simoni.) Japanese, medium, flattened, brick red color. Flesh yellow, very peculiar banana flavor; ripens mid-season; fine for shipping and eating. Does not bear in Southern California; very good in the northern and interior parts.

Sultan. Japanese, large, oval to round, a deep purplish red. Deep crimson blood; very best flavor, better than Satsuma and ripens two weeks earlier; good for every purpose. Medium to good bearer. One of the best blood varieties, and superior to all with the exception of the Duarte.

Wickson. Japanese hybrid, extra large heart-shaped variety. Brilliant crimson on yellow ground; flesh bright yellow, very juicy with rich fine flavor. Ripens mid-season; good keeping qualities, good for table and shipping and ripens off tree. This variety needs pollenization; do not plant alone. The Hale is a splendid pollenizer for the

Wickson, which is a heavy bearer when so treated and has the largest fruit.

Yellow Egg. European, medium to small, oval and yellow. Flesh not well flavored, sweet and coarse. Ripens late; used for cooking and shipping. Does not bear in this section. The Kelsey or Shiro a good substitute.

BURBANK'S NEW HYBRIDS

While we do not agree with all that is claimed for Mr. Burbank's productions, and deprecate the extravagant wording in some of the descriptions of his new varieties, we wish to go on record as appreciating the great work he has done with plums. No one has introduced so many new varieties of merit, which are of especial value to the Pacific Coast and to Southern California in particular. In the latest varieties described below, we believe we have some very valuable fruits which will take their place with some of his earlier introductions, now grown as standard commercial sorts, popular and profitable all over the state.

Beauty. One of the latest. Very early, bright red, pointed shape and yellow flesh. This is being planted largely around the Vacaville fruit shipping district, where it is looked upon as the coming fruit. Not yet tested in this vicinity.

Duarte. One of Mr. Burbank's productions, introduced by us in 1908. From our own observation and from reports received from those who have purchased this variety, we consider it the most valuable blood plum yet introduced.

We have tested the following Blood Plums, all of the kinds in cultivation that we were able to obtain: Apple, Duarte, Maynard, Satsuma, Late Satsuma and Sultan. All are genuine Bloods and as the difference in appearance of the ripe fruit is not great, especially to the casual purchaser, they could all be sold in the open market as Satsumas. We make this statement because many of our customers insist on having the original Satsuma, knowing it as a good selling fruit, while as a matter of fact any of the newer varieties would command the same or better prices.

As the Satsuma is so well known, we will base our comparisons on that variety. The Apple is later and larger in size on the average. It sometimes has a slightly mottled or streaked appearance before fully ripe, but has a rich and very deep blood flesh of much better flavor. It proved to be a shy bearer with us and was discarded. It is so large that it often breaks open, dropping from the tree.

The Maynard is rather smaller, somewhat earlier, good color and quality, but more irregular in fruiting.

The Satsuma's defects are irregular fruiting in many localities, and its poor flavor as an eating sort in many instances.

The Late Satsuma is smaller and more round, two to four weeks later and valuable for extending the season. It is also of a much richer flavor when ripe. It is inclined to bear a very heavy crop, to be followed by a very light one.

The Sultan we class as next in value to the Duarte. It is large, one or two weeks earlier than the Satsuma, much better flavor and more regular bearer. It may not stand shipping as well, as it appears to be softer in flesh.

The Duarte is earlier, possibly two or three weeks, averages larger in size and much better in flavor and quality. It begins to bear very young and bears regularly and heavily thereafter, and is unsurpassed for quality and flavor. It is a fast and upright grower, stocky and healthy, and is spoken of in the highest terms by those who have tried them out. Its only noticeable defect is a tendency in some localities to crack or

split on one side. In this section this fault is seldom noticed, not over one per cent showing this inclination, and when so doing healing with a healthy skin, leaving the fruit undamaged.

The main point which makes the Duarte so valuable, aside from its good features already enumerated, is its early ripening. It reaches the market with the very earliest of the blood plums from the earliest ripening section of the state, reaping the benefit of the increased price which the early fruit always commands.

Formosa. Introducer's description: "Extra large, bright red cherry color, flesh yellow, firm, rich, delicious flavor. Fine shipping and table plum, medium early." We have made no tests but have received good reports.

Gaviota. Introducer's description: "Large, deep reddish purple, flesh honey yellow, fragrant and sweet to the pit, which is very small. Very fine as a shipping and eating plum. Two weeks later than Formosa." Not fruited here as yet.

Prize. Introducer's description: "Seedling of Bartlett. Tree very upright grower, large almond-shaped fruit, deep crimson, firm yellow flesh, freestone. A very fine shipping plum." Not tested as to fruit in this section.

Santa Rosa. This has already become a standard commercial. Large, very early, purplish crimson shade to purple and dull red. Flesh mottled and shaded purple-red near skin and lighter at the stone, showing its hybrid character and presumably Satsuma blood. Very good quality, rich and sweet with slight tart taste near skin. A very young bearer and very productive. Tree an immense grower, and we can thoroughly recommend it. Said to be a fine shipping variety.

Plumcots. A fruit secured by Mr. Burbank by hybridizing plum and apricots. The first produced, the Rutland, had very little value for this section of the state. The newer ones have not been fruited, but consider the description as much more likely to be that of a really good fruit.

Apex Plumcot. Introducer's description: "new fruit. Ripens with the earliest plums, tree strong, upright and compact. Bears heavily even when apricots and some plums are failures. Large, handsome, deep pink or light red, freestone, flesh yellow, firm and rich."

Rutland Plumcot. Of very slender habit branches long and drooping like a willow. Round to oval, dull purplish skin. Flesh mottled, purple and dull yellow of rather poor quality. The tree seldom fruits and is of no value except as a curiosity.

Standard Prune. Before taking up the regular list of prunes, we will describe it with the other Burbank productions. It is a cross between a Tragedy and Sugar, having the color of the former, a deep reddish purple with blue bloom. Larger than either, exceedingly sweet, freestone, yellow flesh, firm and juicy. Very fine quality, a combination of the delicate flavor of the Tragedy and the extra sweetness of the Sugar, and said to produce larger and finer dried fruit than any other. We think this claim should be well tested, as in some localities it might lack the necessary body and sweetness, but we believe it will take the leading place as an eating prune or plum. Its productiveness remains to be determined in this locality, as it takes several seasons to judge any variety correctly, and poor bearing qualities has proved the undoing of many new sorts. We recommend the Standard for a thorough trial as it is undoubtedly the best eating variety.

PRUNES

Prunes are simply plums of the European class, firmer, sweeter and better dryers than any other plums, and usually but not always freestones. A few varieties do not come up to these specifications, but are arbitrarily called "Prunes" nevertheless.

French. (Petite.) The standard tried prune of California, and probably 90 per cent of those planted for commercial purposes are of this variety. Of medium size, purplish red, perfect freestone, oval, extra firm greenish yellow flesh, very sugary and productive. The fruit is allowed to drop naturally from the tree or shaken very lightly, then dipped for a few minutes in a solution of boiling lye, rinsed in clear water and spread in the sun to dry. It is not as regular in Southern California as some portions of the state, and not grown as extensively for drying near the coast on account of the fog. The French prune makes a very fine canning product, much superior to most varieties of plums, and its value in this line is being advertised as being far better for eating than those dried.

German. (Quetsche.) Very firm, blue skinned with green flesh. Not a success in California and especially in this part of the state. Very good for eating but not sweet enough for drying. Almost entirely fruitless in this section.

Hungarian. (Pond's Seedling.) Extra large, deep reddish brown, yellow flesh, fine flavor, juicy and sweet, attractive, but cloying if eaten in quantity. A very fine shipping variety, will not dry on the stone. Sometimes dried or evaporated by being pitted and sulphured.

Imperial. (Epinense.) Very large, deep violet purple, flesh yellow, rich and sweet; makes very large dark dried fruit. Ripens earlier than the French, but does not succeed in all localities. There are several varieties of this fruit, the one called the Gillet strain being considered the most prolific. Not well adapted to Southern California. Not as heavy bearing or as sweet as the French.

Italian. (Fellenberg.) This is the Oregon variety. They are nearly always dried or evaporated, and make an extra large and attractive dried fruit. Large, deep purple, freestone, flesh juicy and delicious but not as sweet as the California prunes. Very productive in Oregon but a poor bearer in this section.

Silver. Pale yellow, seedling, or identical with Coe's Golden Drop plum. Very sweet, semi-cling; makes a very fair light colored prune. Occasionally bears a good crop in Southern California, but not reliable.

Sugar. Very similar to the French, but much larger and sweeter, but not so heavy or reliable a bearer. This has caused much disappointment in some localities, but it is very profitable in others. Not as good as the French in this locality.

Tragedy. Not a drying variety, but has fine shipping qualities and is fine for canning and the table. Extra early, deep purple with heavy blue bloom, large oval; flesh firm and tender, yellowish green and delicious flavor. Freestone and fast grower and very productive in some places, and fairly regular near Monrovia, but not a heavy bearer. A fine family fruit and one of the parents of the new "Standard."

Pomegranates

While this fruit will probably never be planted extensively owing to the fact that its use is restricted to eating, serving with salads or in fancy drinks, and that only a limited number of people acquire a taste for it, yet the improved varieties here described should result in a large demand and heavier planting. The tree or shrub, for it should be grown in bush form, is very handsome, bearing glossy light green foliage, the new growth being tipped with red and bronze, and the flowers are very striking and showy, of the richest scarlet. The fruit itself is beautiful, both on and off the tree, and should be planted more for ornamental purposes alone, for a Pomegranate hedge in bloom or with fruit is a thing of beauty and a joy forever. It has very few enemies and its culture is comparatively easy. Do not prune or trim the plants very much as they bear better if allowed to become bushy. There is a fun-

gous disease which has recently appeared in adjacent counties which attacks the fruit while young, turning the pulp into black powder. This should be watched for and precautions taken to prevent its spread.

Paper Shell. Very large, thin shell, clear light creamy yellow with light blush cheek. Pulp clear light red; ripens early; juicy and delicious.

Spanish Ruby. This is one of the older varieties and very productive. Medium size, highly colored, pulp dark red and tart. Late.

Sweet Fruited. Very large, early, light colored, pulp juicy and sweet. Not tested in this locality.

Wonderful. Extra large, highly colored, deep red pulp; juice the color of port wine. Fine flavor. Not tested.

Quinces

This fruit succeeds in almost any section of Southern California, but its growth and productiveness is not as good in dry locations. With a proper development of markets there should be a large increase in the quantity of this fruit grown, both for local canning and preserving and for shipment East. The new varieties described are more productive, larger and of better appearance than the older sorts, and we look for an increased demand for this fruit.

Angers. Medium size, yellowish green, rather coarse and fairly productive. A late variety and used for stock for budding.

Champion. Large, almost round, fairly productive and late. This was the best late before the introduction of the Van Dieman.

Orange. (Apple.) Small to medium, almost round, golden yellow and very early and productive. Begins to bear very young and unless properly pruned and thinned, is inclined to overbear and injure both fruit and tree. Subject to sun-scald and rot, but still the standard.

Pineapple. Similar to the Orange, but slightly larger and better quality. Flesh soft and tender and may be eaten raw like an apple. Cooks soft.

Smyrna. The most productive. A three-year-old tree on our grounds has borne over 100 fruit of good size. Color greenish yellow; oblong with slight neck. Fruit covered with a dense brown wool, good quality; ripens mid-season to late.

Van Dieman. The largest and finest grown, measuring sometimes six inches in diameter. Almost round or slightly ovate with a short neck. Clear light yellowish green, extra good quality, ripens medium to late, and a strong, thrifty grower.

Olives

Olives have been in heavy demand for the past few years, resulting in somewhat extravagant prices for the trees. The varieties have been well tested and the poor ones discarded, the market for fruit and oil developed in a reasonable manner, and while we may look for more moderate prices for the fruit, owing to the extensive acreage planted and coming into bearing, there is no danger of a collapsing boom such as marked the olive industry some years ago. At the same time we would warn planters not to expect the extravagant profits promised in some of the advertising literature that is being circulated. We are listing what we consider the most dependable kinds. Olives will live and grow with less water than any other fruit, but will produce little or nothing under those conditions. They should have regular care, water and cultivation, and in districts subject to scale, spraying and fumigating to insure paying crops.

Columello. A small, rather light colored fruit, making a light pickled product. Fair to medium for oil, its greatest advantage

being its regular consistent bearing. In a trial covering eight or ten years, this variety proved to be the only regular annual bearer, and often begins to fruit when three years old. Where the Mission or Manzanillo do not thrive we recommend this variety. A strong, upright, thrifty grower, fine for street trees.

Manzanillo. Round, deep brownish black with small white dots. Hardy but straggling grower, prolific and regular bearer in good Olive sections, but uncertain in this locality and points near the coast. One of the best and in good demand for oil and pickling at top prices. Ripens early.

Mission. The best known, most productive and most generally planted Olive in California. Introduced by the Mission Fathers from Mexico and Spain. Oval and slightly pointed, it is the typical shape which the market prefers. Regular and prolific, jet black, medium late and good quality, especially for pickling. Both the Mission and Manzanillo show increased production if planted together, resulting from cross pollenization during the blooming season.

Grapes

Grapes are divided into two great classes—the California or European, and the Eastern or American and allied species. The European (*Vitis Vinifera*) is, of course, much more important in California, although in a small way the American sorts find a ready sale for table and fruit stand use. There is, however, a growing demand for them owing to the fact that Eastern people are in the majority in Southern California, and there is a very good opening for those having suitable conditions to grow the Eastern varieties and secure good prices. In other respects grapes are divided according to color, red, white and purple, and according to use into table, raisin and wine, and, again, to conform to their habit of growth, into trellis and low-pruned grapes.

European or California Varieties.

California's great superiority in grape culture is due to her peculiar adaptation to this class. This is the only state, except a small portion of Arizona and Oregon where they have been grown successfully for commercial purposes. Experiments are now being conducted in New Mexico and Southwest Texas, which may result favorably, but for all practical purposes California will remain the European grape state. The Pioneer Nursery handles only those varieties used principally as table and raisin purposes, although wine may be made from them if desired. Only a few are adapted for raisins, and of these the Muscat, Thompson's Seedless and Sultan are practically the only kinds used in this state. Only sections in which there is little fog and an abundance of hot weather are adapted for this purpose. All grapes should be tried out in new locations before being planted extensively, as they are as peculiar in their likes and dislikes as strawberries and apples. A variety may do well

in a certain location, and a few miles away be a total failure. It is well to follow the example of successful planting in your neighborhood, and lacking that, to select and plant a large number of varieties, choosing those that are best suited to your conditions. The varieties which absolutely require high staking or trellis are the Red Emperor and Thompson's Seedless. The Black Prince and Black Morocco are also very much better when treated this way, and there are a few other varieties where the production could be increased by this method. All of the others are usually pruned back into low bushes and there are a few which succeed in no other way. The application of dry Flower of Sulphur is necessary in most places, except in the driest parts of the interior valleys, to prevent mildew, and one to four applications are necessary according to the weather and location of the vineyard.

Black Hamburg. This variety is grown largely in the hot houses of England, where both vine and fruit reach an immense size. In California, medium to large, rather compact bunches, jet black; flesh sweet and firm; fairly productive. One of the best black table grapes, surpassed only by the Malvoise and Black Morocco. Not especially good for shipping or keeping, but fine for local market.

Black Morocco. The largest grown, often reaching one inch to one and one-eighth inches in diameter; bunches rather compact and large. Almost the latest grape grown, and should never be planted where there are early frosts or rains, as it cracks badly when wet and rots easily. Should be pruned long, on arbor or trellis if possible, foliage thinned and well sulphured. A delicious meaty fruit of fine flavor. Semi-transparent black or clouded maroon on green background. Very fast rank grower.



BLACK MOROCCO

SINGLE BERRIES
of Black Morocco, Cornichon, Tokay
Muscat, Red Emperor

CORNICHON

Black Muscat. The richest, spiciest and most highly flavored variety grown. High quality, fruit and bunches medium size, not compact. Medium bearer, rather poor grower and inclined to die easily. A high-class grape for family use.

Black Prince. Very long bunches, fruit round, medium to large, type similar to the Rose of Peru. Strong grower, should be trained on stakes or trellis. Ripens late, needs plenty of sulphur.

Chasselas de Fontainebleau. See Sweet-water.

Chasselas Rose. A very small pink or light red fruit of pleasant taste and flavor. Ripens early, but too small for planting.

Chasselas Victoria. Bunches very broad and so compact that it has the appearance of one solid and individual fruit. Clear yellowish green, tinted amber and pink; very good flavor. Irregular bearer; bruises easily; for family use only.

Cornichon Black and Red. Late, very long oval shape, blue black. Clusters loose, skin tough; fine shipper and fair for keeping. Quality poor to good, according to location. This variety has been criticised as to quality, and a great deal of the fault is due to picking too green. Fairly productive, good growing and market qualities.

Dattier de Beyrouth. New, not tested here. Introducer's description: "Very large bunches, loose, fruit oval, very large, golden amber with white bloom, thick and fleshy, sweet and juicy, ships and keeps well. Extra valuable."

Golden Chasselas. The best early white sweet grape. Two weeks earlier than the Muscat, almost as large and sweet, but not as highly flavored. Rich golden color.

Gros Colman. The largest, except Black Morocco. Dead black with heavy blue bloom. Productive, large bunches, sweet, juicy with rather tender skin. Described as a late variety but ripens early here. Subject to mildew and needs frequent sulphuring.

Golden Champagne. A new grape, highly recommended by growers in La Canada. Very late, large, keeps well, but not tested by us yet.

Golden Champion. Not tested in this locality. Very large, golden yellow, round, juicy and a splendid table grape.

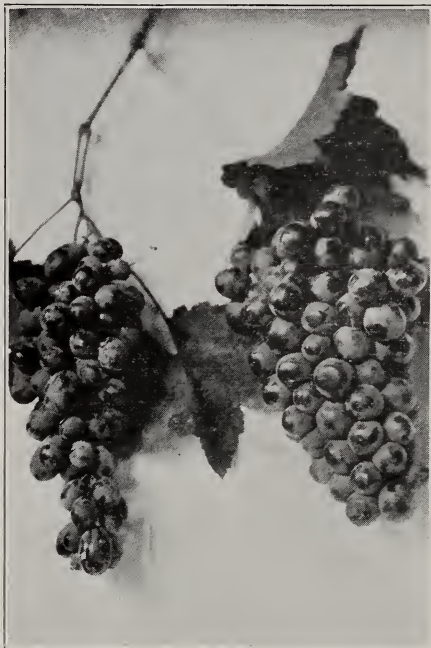
Golden Queen. Not tested here. Large, greenish yellow, juicy, sweet with delicate Muscat flavor.

Malaga. Large bunches and fruit, late, greenish white or pale yellow. Thick, meaty, good keeping and shipping qualities. Not as sweet or high flavored as

the Muscat, but more productive in Southern California. Very strong and rank grower, with heavy foliage, making it successful in hot sections such as the Imperial Valley and Arizona.

Malvoise. (Black.) The very best black variety for the table. Loose bunches, fruit oblong, medium to large, brownish black shading to a translucent opal or reddish brown. Firm, juicy flesh, delicate and aromatic flavor, strong grower and medium bearer. Best for home use.

Mission. The oldest variety in California. Strong, rank grower, bunches large and very loose and open, stem white and brit-



RED EMPEROR

TOKAY

tle, fruit round, medium size, blue black. late. Used for both table and wine. Fair quality.

Muscat. The standard table and raisin grape. Bunches large, rather loose, fruit extra large, rather oval, greenish white or translucent yellow, flesh firm, sweet and juicy with high aromatic flavor. Not as good shipping or keeping qualities as the Malaga, but richer and sweeter. Should be pruned very short, needs plenty of sulphur where fogs are prevalent.

Red Emperor. Very strong, rank grower; must be staked or trellised. Very late; good shipping and keeping qualities and stands rain better than any other. Bunches large and long, fruit large, oval, not as large as Tokay, but darker red, with slight purple tint on cheek, giving it a beautiful color. Quality better than Tokay, slightly tougher skin, does not crack. This variety does not usually bear well until three or four years old in this part of the state.

Red Muscat. Highly recommended by growers in La Canada, near Pasadena. A beautiful large red variety with Muscat quality and worthy of a trial.

Rose of Peru. One of the standard blacks. Bunches large and rather compact, fruit

medium size, round, purplish black or shaded red-brown. Early, very sweet, juicy and fairly firm, good but not highest quality. Very productive; will not stand shipping; good for local market only.

Sabal Kanski. Similar to Tokay. Bunches and fruit larger, higher flavor, but does not keep or bear as well. Discarded as non-productive here.

Sweetwater. (Chasselas de Fontainebleau.) The earliest European grape to ripen. Bunches medium, small fruit, white or lemon yellow, very light, sweet delicate flavor, fine eating. Not a strong grower and only moderately productive.

Sultana. (Seedless.) A seedless white variety, principally used for raisins, but excellent for eating. Greenish white, round, small to medium, bunches well filled without being compact. Very sweet, good flavor, a splendid grape. Should be pruned short. Fine for home canning.

Sultanina. See Thompson's Seedless.

Sultanina Rosea. See Thompson's Seedless—Pink.

Thompson's Seedless. Similar to Sultana, but much stronger grower; should be pruned long and trellised. Bunches larger and longer, fruit smaller and ripens two weeks earlier. It is often classed as an early variety, but it is really a mid-season, the earlier grapes sold on the market being always sour. A very prolific bearer, clear yellowish white; fruit small of a very delicate flavor. Rapidly gaining first place for seedless raisins and succeeds in the hottest sections. Needs plenty of sulphuring in Southern California, and is inclined to rot easily in the bunch and drop off when ripe. Does not bear well until the third or fourth year, and will overbear if permitted, making them short lived.

Thompson's Seedless-Pink. Pink, new, similar to the white variety, much better for shipping fresh. Not tested as yet in this locality.

Tokay. (Flaming Tokay.) One of the handsomest and largest table varieties. Brilliant red coloring, large oval berries, the flesh being firmer and more solid than others, bunches large; ripens medium to late. Quality good, but not as rich and delicate as some others. Keeps well and at present is shipped more than any other variety. In this section we recommend it only for high, gravelly mesa ground near the mountains, as it mildews and cracks badly in low or foggy situations and spoils easily with the first rains. We regard the Red Emperor as much superior for flavor, thriftiness, keeping qualities and adaptability to a larger section of territory, but the Tokay is probably the heaviest bearer. They are similar in many points, but require different treatment, especially in pruning.

Verdal. A late green or white variety with large, compact, handsome bunches; fruit round, medium to large; very prolific. Moderately firm and juicy, but not as sweet as the Muscat.

American Grapes.

This class variously called Eastern or American are varieties of *Vitis Labrusca* species, native to the eastern portion of the United States. They are of a more rampant climbing habit than most of the European kinds, much harder as to cold and most of them fairly resistant against the attacks of the Phylloxera, which has caused much damage to vineyards in Central and Northern California, but not in the south as far as we are aware. There is a general impression, entirely false, that this class of grapes will not do well in Southern California. This may be true in heavy clay and black adobe

soils, but our tests of a large number of varieties in the gravelly soil of the foothills and in the sandy soil of Monrovia, has shown only a few kinds that did not do as well as they do in the east, and some of them did better. American grapes must be grown on trellises or arbors and require more knowledge and care in pruning than the California sorts. No grape will succeed unless properly pruned and cared for, and we think that many of the failures in growing this class of grapes is due to this cause. Most of the varieties described here we carry in stock. A few we have tried and discarded, but can get any variety on short notice.

Brilliant. This variety leads the list, not only in an alphabetical sense but in quality as the very best eating grape. It is a new hybrid introduced by the late T. V. Munson of Texas, a noted propagator of new varieties. It is red in color, medium size, compact bunches, ripening very early, ten days before the Concord. Skin very tender and does not crack. The pulp and skin may both be eaten and the flesh is the softest and sweetest we know, and has a tender, velvety texture distinct from any other. Very productive, early bearing, rich and delicate flavor, the finest dessert grape. The birds are very fond of this variety and the bunches should be protected by paper sacks before ripening.

Brighton. A soft red variety, flavor something like the Brilliant, but not as good. Small bunches and poor bearer. Discarded.

California Concord. See Pierce, with which this variety is identical, although introduced at a high price as a novelty.

Campbell's Early. A fancy kind, still high priced. Round, reddish black, slightly larger and a week or ten days earlier than the Concord, with a distinct flavor. Skin rather tough, said to be a good shipper and keeper. Fair to good bearer, almost as large as the Pierce, much earlier but not as productive.

Catawba. This is one of the few varieties which we think are not adapted to this locality, but for the last year or two they have been doing better. Late, medium size, dark brownish red, rather compact bunches and a very tough skin. Rather poor bearer and quality and not recommended.

Centennial. New. Small, green, very compact bunches, round, very late. After the Niagara order, but two or three weeks later, and not as good or productive. Discarded.

Concord. The standard American grape. Does well in Monrovia and most sandy soils, but reported as poor in some places. Very productive, medium to large bunches and fruit, perfectly round, blue-black with very blue bloom. A very nice grape of pronounced flavor and in great demand by most Eastern people. The fruit cracks easily in handling and there are always a few green grapes on every ripe bunch.

Delaware. This variety does very much better here than in the east, where it is a very small grape, rather difficult to grow and unproductive, although classed as fine flavor and quality. In California it is a very rank, healthy grower, bunches very heavy and compact, fruit small but larger than those in the east. Pink and amber, tough skin, but sweet, high flavored, spicy and rich.

Diamond. (Moore's.) A white grape very similar to Niagara, but two weeks earlier. Medium size, compact bunch, very sweet and delicate flavor. One of the best early varieties.

Early Ohio. The earliest grape grown except the Green Mountain. Blue-black, small, quite productive, bunches loose and small, poor quality. Discarded.

Eaton. An improved Concord, which it resembles in every respect except that its bunches are not quite as large and the berries are almost twice the size. A very fine grape.

Goethe. (Rogers No. 1.) This is one of the first hybrids between the American and European varieties, and was produced thirty or forty years ago. It never succeeded well in the east as it ripens too late for most grape sections there, but has proved to be a fine grape as grown in California. Dull amber, pink shading to transparent green, oval, fruit of large size, rich and sweet with a peculiar flavor unlike any other. A rank, healthy grower, large loose bunches and very productive. A valuable variety.

Green Mountain. One of the new sorts and the earliest known. Ripens about a month before the Concord and two or three weeks before Campbell's Early, Brilliant or Sweetwater. Very small, greenish white, light sweet delicate flavor. Fairly good bearer, small bunches, rather delicate.

Iona. The prettiest Eastern and the best for quality. Medium to small, compact, beautiful bunch, brilliant, clear opal red, almost transparent glossy skin. Flesh very firm, rather tough skin, but crisp with delicious vinous flavor, sweet and rich. Moderate grower, clean and healthy, a distinct variety. Said to be a failure in the east, owing to cracking and rotting. No trace of this in California, where it is the thriftiest grape we have.

Isabella. The grape which gave all Eastern varieties a bad name in California, and one of the most widely disseminated and about the only one of that class that is known at all in the Northern and Central portions of the state, and its poor quality has led to a general condemnation of all American varieties. A vigorous grower, making it an arbor variety; fruit oval, black, rather tough skin and not especially sweet. Ripens late and has a strong flavor not agreeable to everyone. It has one point in its favor as it is probably one of the parents of the Pierce or Royal Isabella, the largest and most productive of the American class.

McPike. A new grape introduced as an improvement on the Concord, but the specimen tested was so similar that it was almost indistinguishable. If there is any difference it is in the size of the bunch, which is larger than the Concord, and it may possibly be more productive. All other characteristics identical.

Moore's Early. A very large black sort, earlier than Concord. Only a few grapes in a bunch and a poor bearer. Discarded.

Niagara. The very best white, often called the White Concord as the berry is the same size but the bunches more compact and shapely, and ripens a little earlier and more evenly. Clear greenish white, splendid flavor, sweet, juicy and delicate unless allowed to remain too long on the vines, when it becomes flat. Very productive and a strong grower; one of the very best.

Pierce, Royal Isabella, California Concord. This is either a hybrid seedling or a sport of the old Isabella, originating twenty years or more ago with Mr. Pierce of Santa Clara, and has lately been reintroduced under the name of the "California Concord." It is the very largest and strongest American grape grown. The leaves and fruit, individually and in bunches are twice, often three times, the size of the Concord. Berries round, very large, deep bluish black, sometimes greenish on one side if grown in the shade;

skin tough; flesh sweet if fully ripe, but as it ripens late it is often put on the market when still sour. Bunches very large and compact, quality good but not equal to the Concord. The very best producer, shipper and keeper of all grapes in this class. Very strong grower, canes strong and very large, leathery leaves. One of the best for the hot interior valleys.

Romel. A white grape, earlier and smaller, but similar to the Niagara and not as productive or as good a quality. Fruit drops badly. Discarded.

Worden. Very similar to the Concord, larger fruit and ripens about a week earlier. Same color and flavor, even better quality, but not quite as vigorous in growth. A very fine early Concord variety.

Blackberries

Many standard bush varieties are subject to rust in this section. The Crandall has never been affected and is now universally grown all over Southern California. The Mersereau has been grown here for five or six years and has not as yet developed any rust, so we may regard that as also immune. Bush varieties should be shortened back two or three times during the growing season to make them stocky. The trailing kinds are usually grown over a trellis or wire, but occasionally in very sandy soil are allowed to ramble at will and develop like a watermelon vine. Blackberries are hardy and more successful in all soils and conditions than other berries.

Crandall. The standard in Southern California. Possibly it is identical with the Evergreen blackberry of Oregon and Northern California. It is a steady grower and very productive, medium to large berries, sweet and well flavored.

Himalaya. The most rampant grower known, growing 20 to 30 feet in a single season, occasional vines covering twice that amount. There is a great difference of opinion regarding the quality, produc-

tiveness and value of this variety. In some localities it is the best of all, in others it would not be considered. We believe the water and soil must be suitable or it will run mostly to wood and the berries will be of poor quality. It does not bear much until after the third or fourth year, and should be grown on a trellis and pruned back somewhat like a large grape vine. The fruit is produced more freely on the old wood, and the stems that have produced are not removed as is the case with all other varieties. It ripens later than all others.

Mammoth. A very rank growing trailing has proved to be adapted to Southern California. It is larger and later than the Crandall, and some of them ripen at intervals during the whole summer. Very high flavored and rich. We recommend it.

Mersereau. A new sort from the East, and variety, with very long berries, sometimes nearly two inches in length. One of the most productive and profitable. Must be trained over trellis or wire. Fruit is of fine quality and appearance and sells well on the market. Ripens later than the Crandall.

Currants

Currants are seldom successful in Southern California, except the native species described below. There are a few locations, especially in the mountains, where they are very productive and profitable, but on the lower levels they grow but do not bear. We carry four or five of the best varieties in stock in black, white and red.

Black. This is the favorite of the English people and grown largely in their country. It has a very peculiar taste and odor, not agreeable until a taste has been acquired. There are several varieties.

Cherry. A large, bright red. A standard variety.

Fay's Prolific. Extra large and very productive. Red.

Perfection. New. Very large and productive. A cross between Fay's Prolific and the White.

Victoria. Medium size, long branch, brilliant red; late.

White Grape. Large, yellowish white, mild flavor, extra prolific.

Native Yellow Flowered. (*Ribes Tenuiflorum*.) This is a native of our sandy washes and produces a large quantity of fruit of very fair quality for jellies, etc. Small to medium yellow, red and black. Bush grows from five to seven feet in height. A fruit with a future and worth cultivating.

Dewberries

A species of blackberry with a trailing habit. Should be grown on wires or trellis except in very sandy soil.

Gardena. Practically the only Dewberry grown in Southern California. Round, rather tart until fully ripe; very produc-

tive and early, and a thrifty grower. Supposed to have originated near Gardena, California.

Lucretia. A favorite in the east and to some extent in the northern part of the state. Fruit long. Not a success here.

Gooseberries

This fruit is in the same class as the currants and requires the same conditions for successful growth. We have heard of them fruiting near Monrovia, but have never seen them.

Houghton. The small red variety common in the east. One of the hardiest and most prolific.

Oregon Champion. Medium size, pale yellowish green, very productive and does not mildew.

Native Sorts. Unlike the native currants, they are edible but not palatable. There is an opening for some "Wizard of Horticulture" to try and hybridize the native and cultivated sorts and produce a fruit that will be productive in this climate.

Loganberry

A very fine flavored fruit, a hybrid of blackberry and raspberry, with characteristics different from each. Trailing habit, fast growing and productive. Should be grown over low trellis and old canes re-

moved as soon as fruit is gathered. Long, bright red, becoming purple when fully ripe. Very juicy, tart and richly flavored; fine for canning. It originated in California and is not hardy where the winters are very cold.

Raspberries

Not a success in very dry or gravelly locations, but do well in a heavier soil, rich sandy loam or fine sand if given plenty of water and fertilizer. The Black-cap is rather hard to raise here and needs exceptionally good soil. Like the strawberry, the raspberry has a very long fruiting season in California and some varieties are practically everbearing during the warmer months. They should be pruned low and made to branch well, and are usually supported by wire. The growing of these and all other berries, with the possible exception of the blackberry, calls for regular and frequent irrigation.

Black-cap. (Kansas.) This variety roots readily from tips like the Dewberry and Mammoth Blackberry. They require a good rich loamy soil and kind treatment, and are liable to dry on the vines unless given plenty of water. Not as productive as the red varieties but command a higher price, as they are much in demand, owing to their attractive flavor. There are other

varieties which can be supplied on short notice, and among the best of these are Gregg, Souhegan and Plum Farmer.

Cuthbert. (Red.) One of the oldest and best. Very large, fine flavored and ripens over a long season, and for this reason better for family use than the market.

St. Regis Everbearing. A new berry from the east and highly recommended. We have this variety on trial and it seems to have a long fruiting season, and it is probably what they claim for it—a true everbearer.

Surprise. (Red.) A new variety, early and very productive, one of the very best. Usually has a second crop in the fall.

Superlative. (Red.) A new late variety much advertised. Later than the Cuthbert and Surprise, very productive and a strong grower. The Japanese who supply most of the berries for the market grow Surprise and Superlative almost exclusively.

Strawberries

This fruit in Southern California has a very long fruiting season, some varieties near the coast, where the weather is cool, being practically everbearing, and may be purchased any day of the year in the Los Angeles market. Strawberries require plenty of water during the ripening season, and if the weather is warm will need irrigation every two weeks. If planted in the fall, from October till December, will usually bear a fair crop in the following spring, but especial care is required for planting at that time. They yield the best on a sandy or sandy loam soil, and varieties should be chosen that are adapted to each locality, as it is very variable fruit, its habits of growth and production being entirely different on locations only a few miles apart. We can furnish almost any of the kinds that are grown if a sufficient number is ordered to warrant the expense of getting them from the east.

A1. A variety largely grown around Covina and Los Angeles. Resembles the Excelsior, but larger. A good early sort and said to be a good fall bearer.

Brandywine. One of the largest and most productive, especially near the coast, bearing a great many late fall and early winter berries in that vicinity, but it is not a winter variety further inland. During the cool weather it often colors only on one side, but is probably the most extensively planted than any other.

Excelsior. A very rich, highly favored fruit, tart during warm weather but milder during winter and spring. The most productive winter sort in this vicinity, and as nearly everbearing as any kind grown away from the coast. Not usually large; fine flavor and good for canning.

Klondyke. This variety is running the Brandywine a close race for popularity, for it is a better grower and probably more productive, and stands the dry weather better, making it a good berry away from the coast. Grown largely by the Japanese.

NOTE.—We are frequently in a position to quote very low prices on berries in large quantities. Get our prices before ordering.

Almonds

Almonds are very deep-rooted and will succeed with less water than any fruit trees, with the possible exception of the grape. They are very exacting as to climatic conditions and there are only limited areas in the state where they have been a paying proposition. The most important item for successful Almond culture is the absence of

frost in the early spring, as it blooms the earliest of all, and frosty nights or hard rains at this time result in failure of the crop. Usually sloping foothill locations with good drainage and above the spring frost line are the best. They do not prove successful near the coast, and they are not reliable until far enough inland to be be-

yond the influence of the fogs. For the best results two or more varieties are usually planted together; and for this purpose the Texas Prolific is one of the best for pollenization. The Nonpareil is perhaps the best bearer in locations where Almonds are difficult to grow, and has the softest shell of any except the Papershell. The Jordan has quite a hard shell and Drake's and Texas Prolific are medium. Almonds on Almond roots dislike wet feet and refuse to grow on damp, heavy soil.

Drake's Seedling. Late bloomer, medium soft shell, rather large kernel and a regular and abundant bearer.

I. X. L. One of the largest and finest, but near Monrovia and many other locations a poor bearer. It should be planted with

some pollenizing variety. Strong, upright grower, soft shell, kernel often double.

Jordan. Extra long thin-skinned kernel, commanding a higher price in the market than any other variety. Tree of weeping habit, hard shell, bears regularly but not heavily in Monrovia. There is a strong demand for this variety.

Ne Plus Ultra. A standard variety. Medium to large, long and soft shell. Uncertain in this vicinity but sometimes a heavy bearer.

Nonpareil. The best and most reliable bearer at Monrovia. Tree of weeping habit, nuts rather small and flat, very thin shell, prolific and regular.

Texas Prolific. Late bloomer and a very regular and abundant bearer. Good for pollenizing other varieties.

Butternut--White Walnut

Tree like the Black Walnut, only smaller and more spreading and slower in growth. Adapted for deep, rich and rather damp sit-

uations. Nut hard, very deeply furrowed, meat of finest quality, more delicate flavor than the Black Walnut.

Chestnuts

American Sweet. Tree of more slender habit and slower growth than the Spanish; nuts smaller but much sweeter. It makes a beautiful shaped tree, but requires better soil and culture in California than the Spanish variety. A very serious bark disease, highly contagious and deadly, is attacking the trees in the east, and its introduction into California should be carefully avoided.

Spanish or Italian. An exceedingly ornamental tree and one of pronounced economic value. Grows very large, round; oval spreading habit similar to the Texas Umbrella, but much longer lived and more majestic in appearance. Grows best in deep, loose soil with plenty of water and not adapted to gravelly or rocky conditions, but does fairly well in clay. Foliage dense and glossy dark green. Young trees, particularly so when planted singly, are often sterile, producing burrs but no nuts, and they do much better if planted in groups or rows. One of the very best deciduous trees for country roads, where the soil is rich and water available. Good bearer, nuts large, fine quality, especially for roasting and are always in demand at a good price.



YOUNG SPANISH CHESTNUT TREE

Filbert or Hazelnut

European. Not thoroughly tested for this section of the state. Succeeds well in the north, and in the foothills and lower mountains in the eastern part of the state. We import several named varieties from Europe, which are grown from cuttings or layers and are much more valuable than seedling plants. Among those we can usually supply are the English, Em-

peror, Large Round, Cob and Cosford. We recommend them for trial only in this section.

Hazelnut. (American.) The small variety from the east, where it succeeds on dry, poor soil or on rocky hillsides. Not tested in this section, but seems to grow fairly well.

Hickory

Shagbark. Nut small to medium, very sweet flesh, productive with loose, shaggy bark. This tree is most often found on the uplands, and will succeed better over

a larger range of country than the Shellbark.

Shellbark. Nut larger, but slightly thicker shell than the foregoing. Tree very large, bark in loose flakes. Found only in rich bottom lands.

Pecan

This nut grows and bears well in Southern California. There are seedling trees in Alhambra of large size bearing a good quantity of nuts each year. The tree is of fairly rapid growth after the first few years, and we believe can be made commercially successful in rich soil where water is available. Some of the new grafted sorts are a great improvement on the old seedling types. The general habit of the tree is similar to

the Black Walnut, but more upright in growth and not so heavily branched. We carry several varieties of budded stock which have been tested in the South Atlantic states, and proved to be the most productive and profitable and bearing the largest nuts. We can usually supply the following grafted or budded varieties and can procure others on short notice, if desired:

Russell, Stewart, Frotscher, Moneymaker and Van Dieman.

Pistachio

Also called the Green Almond. Used for flavoring and can also be eaten when boiled in salted water. Adapted for dry and hot locations. None of the trees are bearing in this section. The male and female flowers

are on different trees, and if nuts are desired trees should be planted in groups. Several new varieties are being introduced by the Department of Agriculture. We have the seedlings only from the common edible variety.

Walnuts

California Black. The native black walnut, now almost universally used as a stock for budding and grafting the soft shell varieties. Very hardy and wonderfully fast growing and succeeds in very dry as well as in wet and swampy locations, and in good soil makes an immense tree. On dry and barren hillsides it grows as a small shrub, making a valuable ground cover. They make an excellent roadside tree, having no enemies and needing no irrigation.

English or Soft Shell. This nut has had a wonderful development in the past few years, but is apparently only beginning to be appreciated and planted. Two general strains are recognized, which differ more in their climatic adaptability than in any physical characteristics. The type generally grown in Central and Northern California and Oregon is the French section, usually a late blooming, rather round nut, full meat and succeeding better in cool locations with late or frosty springs. Not very successful in Southern California. This section comprises the following sorts: Franquette, Mayette, Parisienne, Wilson's Wonder, Concord and others. The second group and the one which produces probably 90 per cent of the nuts sold in California is the Santa Barbara strain, which originated principally from stock introduced by Mr. Joseph Sexton of Santa Barbara, probably from nuts imported from Chile. From this has sprung the Santa Barbara soft shell, Papershell, Placencia Perfection, Klondyke, Chase, Neff's Prolific, Eureka, Hudson's Improved, Davis El Monte and other varieties. They are best adapted to Southern California and the coast districts from San Luis Obispo south, though some varieties are being tried out in the interior valleys. They are usually

large trees, fast growing and quick bearing, the nuts thin-shelled and attractive. The blight has been the worst enemy the grower has had to contend with, and so far no specific method or remedy has been found to prevent its ravages. Some varieties have been developed and are immune or nearly so. Of these the Chase, Eureka and Concord are most highly recommended. This disease is variable, some years being very severe, while other seasons will be equally light. We are giving a brief description of the principal varieties. Those that we do not carry can be procured on short notice.

French Type.

Most of these varieties have not been thoroughly tested in Southern California and are recommended for trial only. They might do well in the interior valleys, but this has not yet been demonstrated.

Chaberte. Round, oval, fair size, extra fine flavor. Blooms late, escaping frost in some sections.

Concord. Originated in Contra Costa County. Round, vigorous, very prolific, and said to resist blight.

Franquette. The standard, bringing a few cents more a pound in the open market. Large, long, oval, very attractive; blooms late. Kernel full and smooth, sweet and good.

Mayette. Very large, round and largely imported from France, and much in demand by confectioners. Blooms late in spring.

Parisienne. Large, broader than Franquette and Mayette, beautiful shape, starts late.

Proeparturien. Fruits young; nuts small to medium; starts growth earlier than the preceding but blooms late.

Willson's Wonder. A very dwarf, slow-growing tree, but bears younger than any other; a good many of the young trees in the nursery have a few nuts every year and bear regularly thereafter. Peculiar shape, very full and round with a deep depression at the base between the two halves, extending half way round the nut. Good quality, being valuable where a dwarf productive tree is desired. High-priced, as the producer sells under contract to maintain the list price.

Santa Barbara Types.

Chase. Originated at Whittier. Original tree very large and productive, and so far escaped the blight. Young trees, however, when growing strongly with much soft wood are sometimes affected in bad years, which is probably the case with all "Blight Proof" varieties. A fine, smooth, round, oval nut; in good demand.

Eureka. A new sort, very resistant to blight and sunburn. Bark slightly rough, nut rather long and smooth, very productive and later in blooming than most varieties of this class, ripening one to two weeks later than the others.

Davis El Monte. A very productive kind of the round, smooth type; brings high prices. One of the best from the El Monte district.

Hudson's Improved. A new variety, originating near Whittier. Claimed to be an improvement on the Placencia.

Klondyke. Said to be the largest walnut grown. Long form, quite rough, wrinkled shell, often of a golden yellow color. Brings fancy prices in the market on account of its size, which always attracts attention. Claimed to be a rather poor bearer.

Neff's Prolific. Originated by J. B. Neff of Anaheim, who introduced the Placencia Perfection. Slightly ribbed, round, with pronounced point; very heavy bearer, blight resistant, blooms late, but ripens early.

Placencia Perfection. The leading variety grown at the present time in Southern California. Large, full, oval, with slight rib at joint of shell. Thrifty and productive, fast grower and bears young.

Wilson's Imperial. Originated with L. W. Wilson of Ventura. Trees extra large and for the past fifteen years have never failed to produce a very heavy crop of round, smooth nuts of good appearance and quality. One of the heaviest bearers and in strong local demand by experienced growers.

Seedling Walnuts. Grown from Santa Barbara selected strain and from Placencia Perfection nuts. Many old growers prefer a good strain of seedlings to the grafted trees, their chief advantage being thriftiness and rapidity of growth, and the formation of a heavy and well-balanced tree, while the grafted sorts are slower in growth and not as good shape at equal ages. A good strain of seed will produce trees that usually bear a good uniform grade of nuts, and the quantity produced on a grove of seedlings ten years old is claimed to exceed that which will be borne by a grove of grafted trees of the same age. The majority of the groves that are now bearing nuts for the market are seedlings, and their principal drawbacks are lack of uniformity in size and uncertainty of production, but this is claimed to be largely overcome by using a selected strain of seed.

Garden

Artichoke

Globe. A large perennial plant of ornamental character with silvery leaves, producing flower heads which are cooked as a vegetable. They are of delicious flavor and should be more generally used. The buds, which resemble gigantic thistle heads, should be cut while tender and green, thoroughly boiled in salt water, changing the water once, and served with butter or salad dressing. Only the interior of the flower and the bottom of the segments are eaten. The plants are of easy culture, grows everywhere. Plant four to six feet apart, as they are of a very bushy growth.

Asparagus

A well-known vegetable, easily grown, producing edible stalks on rich ground the second season. It is impossible to make the ground too rich, but in field culture it is often cultivated in ordinary good soil with no fertilizer at all. The elaborate trenching advocated some years ago is not necessary, provided the ground is kept reasonably fertile. Salt is often used but not necessary. For the garden plant in rows 24 by 8 inches, for field culture in rows 3 feet apart, with plants every 2 feet, setting roots 3 to 4 inches below the surface. To prevent rust, dust the plants while wet with powdered sulphur. When the foliage becomes yellow in the autumn it should be removed and burned and the ground fertilized for the next crop.

VARIETIES.

We are often asked for green or white. The color is entirely a matter of bleaching.

The white is produced by deep planting, or by ridging the ground above the plants and cutting them as soon as the top shows through by means of a long knife. There are differences between the various sorts, but much of it is the result of methods of growing, soil and climate. The principal kinds are: Conover's Colossal, Palmetto, Barr's Mammoth and Giant Argenteuil. A new variety introduced as Starkey's Mammoth, we have found to produce very fine stalks of a decided purplish tint, and is said to be similar or identical with the Giant Argenteuil. It is one of the best and so far has not been affected by the rust.

Horse Radish

Grows well in this section, but is subject to a fungous disease, for which no remedy has yet been discovered. The Maliner Kren is stronger and more regular than the old-fashioned sorts, and grows readily from divisions of roots.

Rhubarb

Crimson Winter. A reliable everbearing sort, producing plenty of shoots all winter. Not adapted to climates which are subject to very low temperatures, but will stand some frost. Very tender, stalks need not be peeled; bright red in color; size variable.

Giant Crimson Winter. A much larger size than the foregoing. In order to be sure of the true variety it must be propagated by divisions of the roots, as seedlings revert to the smaller type. This makes the price of Giant very much higher.

Victoria. The large deciduous variety which remains dormant during the winter and grows regularly during the early spring. A variety of this is shipped from the north and sold on the market as Strawberry Rhubarb. Does not appear to be long lived in this vicinity, the roots usually dying after a few years.

Seedlings

We can supply all varieties in their proper season. Cabbage and Cauliflower, October to April; Tomato, Pepper and Egg Plants, March to June; Sweet Potato plants during the planting season.

Citrus Trees

Citrus stock is graded and sold by caliper measurement instead of by the height. We recommend planting only balled trees, preferably those that have been established for a few weeks after being dug, which is the kind we furnish whenever possible. In planting do not remove the burlap from the ball, as it decays in a very few days, the roots penetrate it readily and it does no harm, whereas it often loosens and damages the roots if removed. Do not plant them too deep. Place the tree so that the bud is at least one inch above the normal level of the soil, and if the ground is of a heavy clay nature, two inches is better. They do better if planted in warm weather, especially freshly dug stock, as established stock may be planted any time of the year, the best months being April, May and June. July and August are also good months if water can be had when wanted. Two of the best ten-acre orchards within a mile of the nursery were planted in August without hardly any loss. Citrus stock is usually budded on sour orange roots, making it less liable to the gum disease, and most of the trees we handle are so budded.

CITRON OF COMMERCE.

A very large fruit, sometimes measuring eight inches in length by five in diameter. Light yellow when ripe, skin slightly rough and irregular surface. The rind, which is sometimes two inches thick, is the only part of the fruit which is used, and from this is made the candied citron of commerce. Its preparation, however, is so intricate that it has never been profitably undertaken in California, and is grown mostly as a curiosity.

Kumquat Dwarf Orange

A very small fruit resembling an orange but only three-fourths of an inch in diameter. They have a thick, sweet skin and juice of a medium acidity, the entire fruit being eaten by those who have a taste for orange skin. They are also used for preserves and are an attractive oddity. The tree is beautiful, small, bushy and compact, the small dark leaves being interest with tiny golden oranges, making a striking display.

Lemon

Eureka. The most popular variety, 90 per cent of those planted in this vicinity being of this kind. Bears young, heavily and regularly; fruit almost thornless and seedless and of fine quality.

Lisbon. Stronger grower than the Eureka, and with heavier foliage, making larger trees, and better adapted to very hot locations. Makes a very high-class fruit, growing more uniform and smoother than the foregoing and color of a richer yellow. Has some thorns and a few seeds.

Ponderosa, American Wonder, Pot Lemon. This variety is used in the East as a house plant, blooming and fruiting in pots when

very young, some plants not over a foot high bearing several lemons. The fruit grows exceptionally large, some of them being as large as an orange. The variety grown in the open ground in California is of a dwarf, spreading habit, with very large leaves, bearing lemons almost as large as grapefruit. Medium quality.

Seedless. A recently introduced variety, somewhat like the Eureka, and said to bear heavier and to have absolutely no seeds.

Sweet Fruited. A fruit seldom seen at present but largely grown by the original Spanish and Mexicans of an early day. Without acid and considered insipid by many. A rarity and curiosity.

Lime

Fruit smaller than Lemons, with a distinct pungent acid taste preferred by many. Often used as a hedge, for which it is well adapted, but it will grow as large as a lemon tree.

Bearss Seedless. A new variety, very large, almost the size of a lemon; very juicy and acid. A few thorns and seedless; foliage large and heavy.

Mexican. Small, very thorny, foliage rather small and dense. The best for hedges and much appreciated for its fruit.

Tahiti. Large and practically seedless. A strong grower and a very fine improved variety.

Sweet Fruited. Tree a strong grower and very productive. Fruit large, perfectly round, resembling in size and appearance the St. Michaels orange. Pulp sweet, without acid, with a slight lime flavor and is a very refreshing fruit.

Mandarin

The Mandarin and Tangarine are really the same and their names should be interchangeable, as they belong to the same class of fruits and both apply to the same varieties in different parts of the country. In California the name "Mandarin" is usually applied only to the King, but occasionally to the Willow Leaf also. For description see Tangerine.

Oranges

Joppa Blood. Large fruit, pulp mottled and stained red, sweet and juicy, ripens late.

Mediterranean Sweet. A medium to large fruit, ripens late, has few seeds, very seldom planted at present.

Ruby Blood. Medium size, skin colored reddish orange, flesh stained or variegated with red. Fairly early.

Navelencia. A late ripening Navel which hangs on well and is good for late markets. Not in much demand.

Navel—Washington. The standard Orange, too well-known to need description.

Navel—Thompson's Improved. Very smooth skin, thin and glossy. Ripens a little

earlier than the Washington and adapted to the high foothill locations. The flavor is said to be not as good as the Washington and subject to more decay in shipping. Brings good prices occasionally but not planted as much as formerly.

St. Michaels. A small orange of rather light color, thin-skinned and very juicy. Ripens between the Washington and Valencia.

Valencia. The latest orange, often hanging over from one season to the next if desired. Splendid flavor, juicy and rich. Has proved to be more profitable than any other variety.

Pomelo—Grapefruit

Bears fruit in clusters, very large size, perfectly smooth, shining, glossy skin. Tree a rank grower with very large dark glossy green leaves. A beautiful tree for ornamental use as well as for fruit.

Marsh's Seedless. Almost the only variety now planted. Large size, excellent quality and of fine appearance, juicy and good. Its being free from seeds makes it the most desired variety.

Nectar. Said to be of superior quality and flavor to all others.

Tangelo

A strikingly ornamental tree of regular compact habit, foliage brilliant, glossy and

smooth; leaves oval, set close together, overlapping and very dark green. Fruit size of orange, rather rough and quite bitter. The tree is so compact that it seems artificial. A splendid specimen for lawn or formal planting.

Tangerines

Mandarin, Kid Glove. A class of oranges in which the skin is attached very loosely to the pulp, permitting it to be easily peeled. Each variety is distinct and when well grown are of delicious flavor.

Dancy. The most productive and best shipping variety. Medium size, smooth, slightly flattened, strong grower and good quality.

King. Usually called "Mandarin." The largest size, skin rather rough and often entirely loose from the pulp, irregular shape, almost round. Not considered as productive as some others.

Satsuma. (Japanese.) The earliest ripening of all oranges, and can usually be picked for the Thanksgiving or Christmas market. Very flat, rather small, skin almost entirely free. Its quality varies; some seasons it is delicious, sweet, juicy and highly flavored; in others, flat and tasteless. The tree a dwarf grower and good bearer. This is considered the hardiest orange, as it will stand a temperature down to 15 or 16 degrees with little injury where the growth is well hardened.

Tropical and Semi-Tropical Fruits

This is one of our specialties, and we are always glad to answer questions or to quote prices. There are several species which we believe will develop into commercial varieties of considerable importance, namely: The Avocado, Feijoa, Macadamia and Guava. The Yellow Strawberry Guava is much superior in flavor to the common red types, larger and equally hardy.

Aberia Caffra Kai Apple. From South Africa, where it is used for hedges. A rank growing, thorny shrub, dark evergreen foliage, very hardy, standing considerable freezing without harm. It is said to produce small yellow fruit of good flavor, but none have fruited with us as yet. Valuable for an ornamental where a self-protective evergreen is wanted.

Avocado, Ahuacate, Alligator Pear

The coming fruit in California and one of our specialties. We believe it will be only a matter of a few years until Avocados will be shipped as widely and regularly as oranges. Trials and developments have been about completed and commercial development is beginning, and those first in the field will reap the cream of the business. We do not look for any fancy profits, nor do we believe the exaggerated statements made by some of the promoters, but we are sure it will become a staple commercial fruit, more profitable than oranges. The trees will always be higher priced than oranges because it costs more to raise them and a larger percentage of loss in budding, but prices are rapidly coming to a business level and we are able to offer many varieties at bargain prices.

Avocados are divided into two distinct classes: The thin-skinned or Mexican, and the hardshell or Tropical. There are many kinds in each class. The characteristics of the Mexican are: Thin skin, usually dark purple and glossy, small to medium size, great productiveness and as hardy as an orange. The Tropical: Hard, firm shell, larger size and more round, more susceptible to frost and not as productive. The descriptions below are partly from observa-

tion and from a list prepared by Mr. P. B. Popenoe.

Mexican Thin-Skinned.

"Blake." Originated in Pasadena; long-necked, medium to small, greenish yellow. Ripens September to December; very productive, fine quality; tree perfectly hardy. Resembles the "Chappelow" except in color.

"Chappelow." One of the oldest varieties in California. The original tree is located on the grounds of Wm. Chappelow, about one mile east of the Pioneer Nursery. The tree is now about twenty-five years old and is a magnificent specimen, fifty feet high, with a spread of branches nearly as great. It withstood a temperature of 18 degrees in January, 1913, showing only a trace of damage on the tips of some of the most exposed buds, and bore fruit that same season. The fruit is long-necked, medium size, deepest black purple; ripens July to November; moderately productive; the flesh is soft and delicate, greenish yellow, absolutely smooth and of high quality. A splendid family fruit and good for local markets. Has been shipped to Washington, D. C., and to Florida, arriving in

good condition. Not as productive as some others.

"Fowler." A Pasadena variety; oval, medium to large; green skin, with blackish



CHAPPELOW AVOCADO
One-half Natural Size

cheek. Ripens during a long season—April to December; highest quality; productive and hardy.

"Ganter." The most extensively advertised variety in California. The parent tree at Whittier is said to have produced \$5000.00 worth of buds and fruit in one season. Estimating 27 trees to the acre, planted 40 feet apart, you can easily figure the profits on a ten-acre ranch planted to this variety. We regard it as a good variety, but we prefer not to base any prophecy of future incomes on the figures given. Fruit oval, sometimes long, medium to large averaging one-half pound, green; ripens September to December; excellent quality and one of the most productive. Tree fairly hardy and good grower. Will probably not be a good shipper as the seed is loose in the cavity.

"Harmon." Another widely advertised and valuable fruit. Oval, slightly compressed at stem end, green shaded with reddish brown, dotted with light specks; very good quality and medium to large for this class. The tree very hardy, standing the freeze of 1913 and produced a large quantity of fruit. Moderate to good bearer. We regard this as the most reliable so far introduced.

"Horn." Originated at Sherman. Medium size, green skin, good quality but fibrous. Ripens October and November.

"Monrovia." Original tree on the Bradbury Estate, east of Monrovia. Long-necked, dark color and extra fine quality. Foliage is very distinct, being rounded instead of oval. Inclined to be irregular in bearing.

"Northrup." From Santa Ana. Oval, pear-shaped, medium size, purple, excellent quality. Bears two crops a year, main yield October to December, and a lighter crop in April and June. Vigorous grower and one of the hardiest yet tested. Fine home variety.

"Rodolph." Originated at Monrovia. A seedling from the "Chappelow," which it greatly resembles. Original tree now only seven years old and has borne three crops of fruit, bearing first crop when only four years old. Long-necked, black-purple, fine quality and hardy. We think it will be an improved and more productive "Chappelow."

Hard Shell Varieties.

"Colorado." Also called "Purple Murrieta." Original tree growing at the home of Mrs. Murrieta, 765 College St., Los Angeles, was purchased at a high price and moved to its present location at a considerable cost by Mrs. Murrieta, who is a great lover of Avocados. One of the best; large, purple, ripens in April and May, moderately productive and of fine quality. The seed came from Atlixco, Mexico. It is very difficult to propagate and will probably always be scarce. Its unusual color and early ripening qualities make it a very desirable variety.

"Dickey." Seed from same place as the "Colorado," and also grown by Mrs. Murrieta, and now planted at Hollywood. Large, green, very productive and good quality. Considered one of the best for commercial purposes. Ripens May to June.

"Dickinson." The tree is in Los Angeles and grown by Mrs. Dickinson from seed



CHAPPELOW AVOCADO. CLOSE RANGE
The Original Tree at Duarte, Cal., on the Grounds of Wm. Chappelow. Now about 20 years old, 45 feet high and 2 feet in Diameter at Trunk. Bearing this year about 1800 to 2000 fruits

brought from Guatemala. Fruit small to medium, green, ordinary quality and very productive. Ripens May to June.



TWO FRUITS CHAPPELOW AVOCADOS

TWO FRUITS MEXICAN SEEDLINGS

"Meserve." Seed from Honolulu or Tahiti and planted by the late E. R. Meserve at Signal Hill, near Long Beach. Fruit almost round, green, very thick skin, large, averaging one pound; flesh rich and oily. Moderately productive. Ripens April to July. The tree is vigorous but only moderately hardy. Is being largely propagated and recommended.

"Miller." Seed from Gautemala and tree growing at Hollywood. Large size, thick, green skin, very best quality. Ripens June and July. No information as to productiveness. Quite tender; will not stand severe freezing. Strong grower; bronze foliage at tips.

"Murrieta." Companion tree to the "Colorado," grown on the Murrieta place in Los Angeles. Medium to large fruit, thick, green skin, very best quality and very productive. It is the latest of the hardshells to ripen, being in season in September and October. Will probably prove to be a good shipper and a valuable commercial variety. Highly recommended but hard to propagate.

"Rita." Grown by Mrs. Taft at Orange; a companion to the "Taft." Medium size, thick, green skin, medium quality and fairly productive. A much faster grower than the "Taft" in the nursery.

"Taft." This is probably the best commercial variety of the hard-shell type so far introduced and tested. Grown by Mr. C.

P. Taft, near Orange, California. Fruit thick-necked, pear-shaped, skin green and very thick. Flesh rich and nutty, excellent quality. Good bearer. Ripens from June to August. Seed small and tight; should make a good shipping variety. Extensively advertised and propagated.

"Walker." Parent tree at Hollywood, and probably the most productive hardshell variety in California, and the one that has brought in the most real money for fruit. It has been known to bear several thousand pears, all of which sold at good prices. Small to medium size, pear-shaped, thick green skin; flesh slightly fibrous of good medium quality. Good shipper. Ripens April to June. Tree scarce and hard to propagate.

SEEDLING AVOCADOS.

All of the budded varieties described have originated in Southern California as seedlings. Seedlings cost much less than the budded, grow thrifter and faster and have a chance of producing a valuable variety. They make one of the best shade trees known, are better than any other for planting along roads or next to orchards where they can receive proper attention. Nearly all grow to a large size and the income from a few roadside trees, should they prove of good quality, will equal that of a good sized orchard. These trees should be planted all over Southern California.

Banana

Orinoco Edible (*Musa sapientum*.) The edible variety differs in growth from the Abyssinian ornamental in sending up suckers or sprouts around the roots, and it is from these that the plants are propa-

gated as it has no seeds. The variety here listed and commonly grown all over California is not the same kind as the imported fruit, being shorter and thicker, having flesh of a light salmon color with

a distinct pleasant flavor. Ripe fruit has often been produced in Monrovia, Los Angeles and other places in Southern California. The plant is very rapid in growth, reaching a height of ten feet in one year. Severe frosts destroy the leaves but the plant recovers in most cases.

Carica Papaya. Melon Fruit or Melon Pawpaw. Fast-growing with very large digitate leaves; thick, heavy trunk of soft texture, easily rotted by too much water during cool weather, and the ground should

be kept dry by a covering of some sort if possible. The leaves ordinarily drop during the winter. Should be planted in frost-proof locations as it is very tender. The fruit is like a large muskmelon, clinging close to the trunk. The male and female flowers are on different trees.

Carica Quercifolia. Oak Leaved or Brazilian Melon Pawpaw. Much hardier than the preceding; leaves long and notched on this side like an immense oak leaf. The root is not so easily injured and it resists some frost. Fruit much smaller, with long neck

Carob Tree

St. John's Bread, Edible Locust. (*Ceratoniasiliqua*.) A splendid shade tree of round, spreading habit, similar to the Umbrella, but a much better tree, as it is hardier, stands drought better, is evergreen and bears a large sweet pod like a locust, but edible, which may be eaten raw or fed to stock. In the dry countries surrounding the Mediterranean it is considered one of the most valuable feeds for stock and is often imported to Europe and America. California's dry hillsides might be made to produce plenty of forage with little or no care if planted with this tree, as they will

grow where an oak or eucalyptus will, with no irrigation after the first year. It is rather slow in growth, beginning to bear about the fifth or sixth year. There are some sterile trees, and these make the best shade, as the shape of the fruit-bearing kinds are often distorted by the weight of the beans. There is no better street tree where a low-branched spreading tree is desired to go under telephone wires, and it is unsurpassed for the lawn, its glossy dark green foliage making a dense shade. This tree will stand a temperature of 15 degrees without harm and should be more generally planted.

Carissa Grandiflora

Governor's Thorn. A spreading shrub of dense habit and beautiful clear dark green foliage. It grows to a height of four to six feet and is improved by being cut back occasionally. It has a pure white Jasmine-like flower, star-shaped, waxy and

fragrant. We have no prettier shrub in our list for massing or for low-spreading hedge effect. Foliage tender and easily nipped by frost, but recovers easily. Bears a shining red fruit like a cranberry, rather tart and fine for jellies.

Cherimoya

Custard Apple. (*Anona cherimolia*.) A close relative of the Eastern Wild Pawpaw, having the same foliage and habit of growth, but of a tropical nature and more tender. The fruit varies in size from that of an egg to the largest grapefruit. Tough green skin, usually with lumpy protuberances, sometimes ending in sharp points. Flesh creamy white, resembling custard or soft ice cream, with the flavors of pineapple, banana and guava nicely blended. A most delicious fruit, but usually a shy bearer and recommended for locations free from frost only. There are several other species which we are sometimes able to supply.

Delicious Monster. (*Monstera deliciosa* or *Philodendrum pertusum*.) A tropical shade-loving plant of climbing habit, with large leaves notched at the edges and perforated with large holes. It bears a green fruit resembling a cob of corn or a pine cone. The plant is so odd in appearance that many persons are convinced that it is artificial. As the plant grows it throws out roots along the stem the size of a lead pencil which reach to the ground. In its native haunts it climbs to the tops of trees 80 feet in height, and these roots hang down to the ground like ropes. The fruit has a thin skin and contains a pulp of a delicious pineapple-strawberry flavor. It makes a fine tub plant as it thrives in the dry air of interiors. For outdoor planting it should be placed under a shady tree, oak preferred, for support. A most striking and valuable plant. Will stand only a light frost.

Edible Passion Fruit. (*Passiflora edulis*.) A fine glossy evergreen vine, leaves thick and of a rich brilliant yellowish green, not divided as in other passion vines. Grows well in either shade or sun, forming a dense matted mass of foliage. Flowers white and fruit the size of an egg, dull purplish when ripe, and has a thick leathery rind filled with a soft mass of greenish transparent pulp, containing very small seeds. Has a very rich, peculiar flavor, and used in the tropics for fancy drinks and ices. Perfectly hardy and will stand a great deal of frost.

Eugenia Jambos, Rose Apple. A beautiful dark green shrub, the young leaves being bright pink and yellowish bronze. The fruit is about the size of a crab apple, yellow with light pink cheek, and transparent as if made of wax. Has a strong aroma, not unlike that of rose perfume or sachet powder. Will not stand much frost and not a strong grower.

Eugenia Jambolena. Similar to preceding, but bearing smaller fruit; tree larger, hardier and stronger grower.

Eugenia Michelia. (*Uniflora*.) Also called Surinam Cherry. Very glossy, shining leaves which when young are pink, yellow and bronze. Fruit size of a cherry but ribbed like a muskmelon, and dark red, almost black. Spicy, rich flavor, very fine for jellies. Plant hardier than most of the others, standing a temperature of 20 degrees in January, 1913, without harm. A slow grower.

Eugenia Myrtifolia. (Australis.) Used principally as a decorative shrub, but bears a small sour red berry, edible and used for cooking. Brilliant, shining, glossy leaves, shaded yellowish bronze, and may be trimmed into attractive and formal shapes. A fast grower, eventually making a shade or street tree. Easily damaged by a severe frost, but recovers quickly under ordinary conditions.

Other Varieties. There are several other Eugénias which bear small fruit, all of different growth, which we are sometimes able to secure for our trade. Any information in regard to these will be gladly furnished.

Evergreen Grape. (*Vitis californica*.) A true evergreen grape vine of very rank, heavy growth, making an immense vine in a short time. Leaves large, entire, very dark green except when young, when they are shining bronze. Back of leaves and stem covered with soft downy hairs of a bronze color. Grapes black, two or three in a cluster, edible, but of no particular flavor.

Feijoa Sellowiana. Also called Pineapple Guava, one of the coming commercial fruits in California. A fast-growing, large



FEIJOA SELLOWIANA

shrub, olive-green foliage, silvery-white on the back, giving the plants a very attractive appearance. Naturally of loose, spreading habit, it can be made more dense by trimming back. The flowers are beautiful with thick, waxy, white petals surrounding a mass of rose-colored stamens. The soft petals are very sweet and may be eaten or used for fruit salads. The fruit is egg-shaped, varying in size from that of a walnut to a large egg, dark green, looking like a small green lemon with the blossom end like a guava. The pulp is creamy white with a flavor of rasp-

berry, banana and pineapple blended, seeds small like those of a fig. It will keep for six or eight weeks and stand shipment anywhere, and on account of its delicate and attractive flavor is bound to be in big demand when known. It is especially good for flavoring fancy drinks, fruit punches, ices, etc., as its aroma is very penetrating, pungent and agreeable. This is considered to be the most frost-resistant evergreen fruit known, as it will stand more cold than the Loquat, having been uninjured in temperatures of from 4 to 12 degrees above zero. It grows well in dry locations, a plant on a dry hillside at Santa Barbara living and fruiting regularly with no irrigation whatever. It is a native of Uruguay, introduced into France in 1890, and later brought to this country. The fruit varying in size, shape and quality, seedlings from large varieties are the most desirable. It does not grow well from cuttings, and so far has never been successfully budded. It may, however, be layered, and no doubt the best varieties will be propagated in this manner in the future, but as far as known there is none on the market at present.

Harpephyllum Caffrum. (Kaffir Plum.) A rapid-growing tree with dark pinnate glossy leaves, making a straight central stem and a beautiful crown. Height 15 to 20 feet; fruit the size and shape of a small plum, deep red color. Quite tender; was badly frozen during the big freeze in January, 1913.

Lemon Guava. (*Psidium Guava*.) This is the large fruited, tender variety, entirely distinct from the Strawberry Guava common to California. It is grown extensively in Florida and the West Indies, and from this fruit the imported Guava jelly is made. It is a large shrub, growing 8 to 12 feet in height, rough corrugated foliage of a light green color, fruit large with small seeds. Usually very productive after reaching maturity. A very pronounced flavor, much admired by those who have acquired a taste for it. It is quite tender and should only be planted in frost-proof sections. There are many sub-varieties; a few are the Pink, Pearshaped and Guatemala.

Loquat. (*Eryobotrya Japonica*.) Well known and widely grown all over the coast section of California, and are very desirable as they are the first fruit to ripen in the spring, and are plentiful from March until May. They do not thrive as well in the interior and are a total failure in the Imperial Valley. It has large corrugated leaves, dark green in color. Fruit size of plum with Calyx somewhat like an apple and usually contains from one to four seeds about the size and shape of a small chestnut. The size, thickness and flavor of the yellow flesh determine the value of the fruit. Most of the Loquats fruiting in California are seedlings as the budded stock is not yet widely distributed. Seedlings vary a good deal in quality, but we regard good seedlings as being almost equal to most of the budded varieties offered. On our own grounds we have four of the budded and one seedling. The former is somewhat larger, but the latter is the sweetest and best eating. Budded sorts have two distinct advantages: The variety is assured instead of being uncertain and they begin to bear very young, often the second year after budding. We list the following kinds; the sour varieties are the best for jelly.

"Advance." The best bearer and most popular. Large, long fruit; ripens late and is quite sour until fully ripe.

"Blush." Similar to the "Advance" but somewhat rounder and ripening earlier. A good variety.

"Commercial." Resembles the preceding, earlier but not as productive.

"Japan Giant." A distinct strain. Color dark coppery yellow instead of lemon yellow; flesh orange instead of yellowish white. Round form, good size, much sweeter and better flavored for eating than any other variety.

"Premier." A good sized fruit, ripening two weeks earlier than the "Advance."

Macadamia Ternifolia. (Queensland Nut.) A beautiful tree with long strap-shaped leaves undulated and prickly on their edges like holly. The young leaves and shoots are handsomely colored, a combination of pink, yellow, bronze and rose. It bears a very fine quality nut, round like a filbert, but much larger, rather heavy, hard shell, delicious meat something like the Brazil nut in flavor but more delicate. Trees at Santa Barbara and Elysian Park, Los Angeles, are in bearing. Small trees are cut back easily by frost but usually recover, the large tree at Elysian Park being little damaged by the severe freeze of 1913. Rather slow growing but a beautiful ornament for any lawn as well as being valuable for other purposes.

Mango. (Magnifica Indica.) A splendid tropical fruit, but too tender for commercial development in this state, but will grow in the best locations where there is little frost. Trees at Santa Barbara, Duarte, Hollywood and Sierra Madre have borne fruit, but they do not grow as luxuriantly in these places as in Florida and the tropics. The fruit is kidney shaped, three to six inches long with a green or ruddy cheeked skin, the edible portion being a mass of yellow pulp around the large seed. The pulp is more or less fibrous and the quantity of these fibres and the flavor of the pulp determine the value of the fruit. The best have but little fibre and can be eaten as readily as a cling peach, and are of a delicious flavor, an attractive blending of pineapple, nectarine and strawberry. We carry a mixed lot of seedlings, but can occasionally offer stock grown from seeds of the named varieties.

Moreton Bay Chestnut. (Castanospermum australe.) A nut-bearing variety said to grow to be a large tree. Long pinnate leaves, the leaflets being two to three inches by five-eighths and are shining green. We have found it to be of slow growth and rather tender. The flowers showy, brilliant scarlet and in long spikes. Worthy of trial in warm locations.

Pepino Melon Shrub. (Solanum Guatamalese.) A small bush of the tomato family, bearing fruit about twice the size of an egg, yellow, usually streaked with brown or dark green. Bears young and profusely and is claimed to be good for preserves, etc. Rather insipid when eaten raw.

Pineapple. (Ananas sativa.) Pineapples have been grown at Hollywood and other places in Southern California, but are not adapted to the dry atmosphere or to the wet, cold soil during the winter, often rotting off at the ground. They are a very attractive novelty in the garden and might be successfully grown in very rich, well-drained soil by sheltering from the rain in the winter and supplying shade and sufficient water during the summer. We carry the spineless variety, a spreading plant with recurved leaves.

Sapota Blanco, White Sapota, Mexican Peach. (Casimiroa edulis.) This fruit

should be more generally grown in California, more for an ornamental and shade tree than for its fruit. Of very rapid



SAPOTA BLANCO (Casimiroa Edulis)
This Tree has Not Been Irrigated for Several Years

growth, clusters of glossy yellowish green leaves, making an attractive tree that will grow and bear abundant fruit without irrigation. In rich soil it reaches a height of 40 feet, making a spreading and rather round headed tree, and in poor, rocky ground it grows more compact, its ultimate height being not over 20 feet. The fruit in shape and appearance resembles a large horse chestnut, yellowish gray color with rather hard, bitter but very thin skin. The pulp is yellow, sweet, peculiar taste, a combination of the peach and pawpaw. It has several good sized seeds. The value of the fruit varies. Some of the oldest trees in the state growing at Santa Barbara produce fruit that is worthless for eating purposes. We believe it would make a fine roadside tree even where it would receive little or no care or irrigation. Very prolific, moderately hardy, many trees in exposed situations escaping damage from the "big freeze."

Sapota Amarilla. A beautiful evergreen fruit tree from Mexico, not tested here as yet. New.

Sapota Chico. Another new fruit from Mexico that has not been tested. Very thick, glossy foliage.

Strawberry Guava—Red. (Psidium cattleianum.) A valuable fruit, quite common in California. A dense evergreen shrub, smooth, dark green, oval foliage; bark and twigs reddish brown. It makes a splendid hedge, enduring the heat with only a moderate supply of water, but for large fruit development must be well irrigated.

FRUITING BRANCH OF SAPOTA BLANCO (*Casimiroa Edulis*)

One of the quickest fruits to come in bearing, often producing fruit the second year after planting. Shaped like a small apple, dark dull crimson; flesh white; strawberry-like pulp, sweet and pleasant, containing a number of small hard seeds. It is the latest fruit in the fall, the first crop ripening in October and the second in December and January, the two often overlapping. Very fine for jellies, etc., as well as for eating raw. Guavas will stand a good deal of frost without damage, recovering quickly from a heavy freeze.

Strawberry Guava—Yellow. (*Psidium lucidum*.) Not as well known as the red variety, but almost identical in appearance and habit of growth, the leaves and stems being of a more yellowish green. The fruit is of a light lemon yellow color, the same general character as the red, but larger and much richer and sweeter flavor. While the flavor of the red is disliked by some, we have yet to hear of any criticism of this variety. Very productive and ripens often in September and October, the second crop not being as large as the preceding as a rule. We regard this as the finest of the Guavas and recommend the planting of several specimens on every place.

Tree Tomato. (*Solanum betaceum*.) An upright, tree-like, soft-wooded shrub, with very large heart-shaped leaves of a smooth, silky texture. Grows to 8 to 12 feet in height, bearing numerous egg-shaped fruit, which when ripe, are about the color of a Japanese Persimmon, and are filled with pulp and seeds somewhat

like a tomato but of different flavor. Not very good for eating raw, but makes a good jelly. An odd and tropical appearing plant having pink flowers in clusters about an inch or more across. Rather tender.

FRUITING PALMS.

The fruiting date (*Phoenix dactylifera*) is not a success except in the very warm locations of the interior, succeeding best at Coachella, the Imperial Valley and Arizona. Plants grown from seeds vary in quality and the fruit is not up to commercial standards even when edible. Seedlings will fruit in six or eight years in the above locations, but there is always a large proportion of the male or non-fruiting specimens, and for this reason it is best to set out only those plants that have been grown from suckers from bearing palms. These, however, are produced sparingly, requiring a long time to root and are very scarce. A few firms have undertaken the importation of these shoots from the date countries in the Old World and some of these are available but at a very high price. Fruiting dates must always be pollenized from a male blossom, which must always be available.

Cocos Australis. This palm besides being the best ornamental variety grown in California produces a large quantity of seeds which are covered by a juicy flesh of pleasant acid taste, making excellent jelly.

Erythea Edulis. The seeds of this magnificent fan palm are about the size of a walnut, the hull being quite sweet and of pleasant flavor, the natives using it for food in its wild state.

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